14.4.30

DATE LABEL

- 338.9 G985 Acc=14437	
Call No338.9. G. 985	Date 29-8-56

J. & K. UNIVERSITY LIBRARY

This book should be returned on or before the last stamped above. An overdue charges of 6 nP. will be levied for each day. The book is kept beyond that day.

community and environment

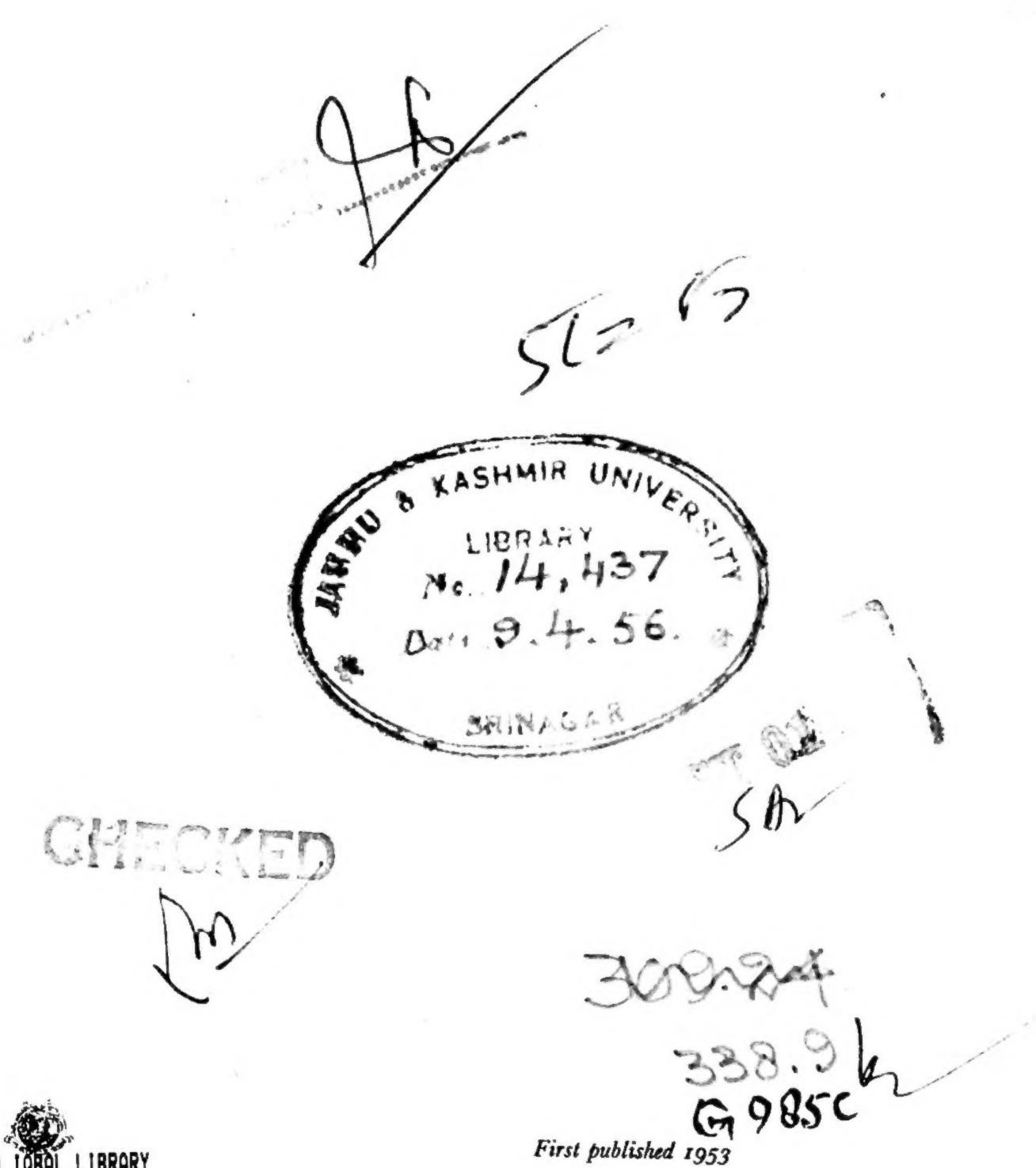
community and environment

a discourse on social ecology

by e. a. gutkind

watts and co.

johnson's court, fleet street, london, e.c.4



ALLAMA IOBAL LIBRARY

This book is copyright under the Berne Convention. Apart from any use specifically permitted under the Copyright Act, 1911, no portion may be reproduced without written permission. Inquiry should be made of the Publishers.

Printed in Great Britain by Richard Clay and Company Ltd., Bungay, Suffolk, and published by C. A. Watts and Co. Ltd., 5 and 6 Johnson's Court, Fleet Street, London, E.C.4

contents

foreword	vi
introduction	X
time for synthesis	I
eclipse of economic man	35

V

foreword by martin buber

When we try to transfer the great "Social Question" from the remote regions of "dialectic" abstraction to the matter-of-fact language of real life, it becomes evident that all the differing presentations of the problem have a common, essentially quantitative character, such as "What is the utmost share in the fruits of his labour that a workman can expect in a national economy geared to the highest production?" and "What should be done to guarantee to him this share?" Through the intellectual and material force which this manner of questioning and its consequences have assumed in our age a number of "little" questions have been displaced or repressed which have an eminently qualitative character, such as "How does the worker nowadays work in a highly mechanized factory? As a human being or as the extension of a machine? In the future cannot the technicians be persuaded to look on men as human individuals?" For everyone who is concerned that man, in the whole interplay of his existence, should live as man, these "little" questions—which persist in whatever manner those others may be "solved"—are great questions, and our author seeks to discover the right answers to them.

One of these questions is "How are men of our modern civilization housed and how should they be housed in order to live as human beings?" There is no question more concrete and topical.

I remember reading more than forty years ago in a book by Chesterton

something to the effect that, when every man has his own house, the social problem will be solved. Only recently I read in the Press that the Prime Minister of Burma had promised his people a "Welfare State" in which every citizen would have his own house. To our ears these words sound like a romantic utopia—that is, a utopia which lacks the most valuable property of a utopia: to be unromantic. But this is not as romantic and not as utopian as it sounds; for it responds to one of those primal aspirations of the human heart which at any time, overnight, may break into practical actuality only to become a self-evident reality. It is not only that man must have a dwelling, it is also his wish. And his wish is for a house. In the unchanging language of the human heart, "house" means today, as when first the word was uttered, "my house, your house, a man's own house "-his home. His home is that solid fragment man has torn from the frightening infinity of space; it is his shelter from the chaos which ever threatens to envelop him. It is his home to be shared only with his nearest and dearest.

When we come to perceive that the essential human reality is neither one of individual nor of collective existence, but lies in the relation of man to man, and is a matter between you and me, then it becomes clear that all this is just a first consideration; what really matters is now our theme. The home a man dreams of is not in any place, no matter where, not in an enchanting solitude from which without fatigue he travels to his place of work and there maybe labours perforce for many hours among "strangers," just to part from them swiftly and completely when the hour strikes to return home. No, the house of man for which he really cares stands now between houses, between neighbouring houses, between the houses of his neighbours. The unconfessed secret of man is that he wants to be recognized in his being and existence by his fellow men, and that he wishes they would make it possible for him to recognize them. He is longing for the fulfilment of both these hopes not only with his family and perhaps at a party meeting or in a public-house, but also in the course of neighbourly meetings, perhaps when one or the other steps out of the door of his house or to the window of his house and their mutual greetings are accompanied by a friendly look, a look in which curiosity, distrust, and routine have been silenced by reciprocal sympathy: the one makes the other feel that he approves his existence. This is the indispensable minimum of humanity. If the world of man is to be a humane world, immediateness must prevail between men as well as between house and house. And as in every other respect, the institutional and the educational influences must supplement

each other. The latent longing of man for a life in mutual appreciation should be brought to blossom and to fruit by education; but the external conditions needed for its fulfilment must also be created. The architects must be given the task to build for human contact, to build an environment which invites human meetings and centres which give these meetings meaning and render them productive.

This book offers the help of architecture in the renaissance of communion between men. Hence its importance.



introduction

In this essay I have tried to sketch in broad outlines the main problems and a few methods which in my opinion should be taken into account in working out a framework of reference for socio-ecological studies. I have made no attempt to deal with the problems as such in anything like an appropriate manner, for this would demand an almost encyclopædic knowledge, which no single person can ever hope to acquire.

The time is ripe for unitary ideas. In the field of social studies the chaos of conflicting ideas and methods is perhaps greater than in other branches of knowledge. This is mainly the result of an unsystematic and analytical approach because the unifying factor of Ecology has not found the attention it deserves. Moreover, our insight into the intricacies of human behaviour is still very imperfect and fractional. And yet the individual human being, the smallest social unit, must be one of the two starting points which determines the direction, the scope, and the character of Social Ecology. The other point of departure is the conception of the universe which man has made himself in different periods. Between these two poles, between the infinitely small—that is, the individual tendencies of men—and the infinitely large—the relation of man to the universe—lies the proper and intelligible field of study of Social Ecology. However, this should not be understood as a demand for an amorphous new discipline of an "all-ornothing" character. Rather it means a systematic selection of the really

instrumental orces which shape man's social aspirations and transform his environment accordingly. One may be inclined to say that everything is part of Social Ecology. This assumption is not too wide of the mark. But a stop has to be made somewhere. In any case, the goal of Social Ecology is Wholeness, and not a mere adding together of innumerable details collected at random and interpreted subjectively and insufficiently.

This irrepressible longing for wholeness has been brilliantly expressed

by Whitehead in Adventures of Ideas:

"In each age of the world distinguished by high activity there will be found at its culmination, some profound cosmological outlook, implicitly accepted, impressing its own type upon the current springs of action. This ultimate cosmology is only partly expressed, and the details of such expression issue into derivative specialized questions of secondary generality which conceal a general agreement upon first principles almost too obvious to need expression, and almost too general to be capable of expression. In each period there is a general form of the forms of thought; and, like the air we breathe, such a form is so translucent, and so pervading, and so seemingly necessary, that only by extreme effort can we become aware of it."

Our appreciation of the unity of time and space is lagging behind the actual development. Although we experience at every moment the effects of the shrinking of the world on our ways of thinking and acting, we behave like narrow-minded provincials not understanding the complexities of this tremendous transformation. Our knowledge of the past and of man's existence on this planet is augmented by an unending stream of new information far beyond what former generations had thought possible. But we refuse to learn from the facts of history that every age has been, and ever will be, an age of transition, and that the longing for stable conditions is an illusion. To be a citizen of all countries, not of one particular country, and to be a contemporary of all times, not of our own time only, is one of the greatest demands made upon us. And so it is with our environment. We must work out a new relationship to the external world and see it as an ever-changing pattern of phenomena and events, as an Expanding Environment full of inspiring and innumerable possibilities. If we fail to do this, we shall not succeed in making life direct and in initiating a personal and intimate relationship to other men and things.

This essay may seem to be a rather subjective assessment of our situation and of some of the problems from which a new pattern of living might

originate. I admit that it is a very subjective approach which has guided my thoughts in writing this discourse on Social Ecology. Like every human being, I am sincerely biased against many other men and things. I do not pretend to possess the objectivity of a "scholar," whatever the claims and merits of that mysterious paragon may be. We can say that something took place at a certain period of history and in a certain place, and we can also state that somebody does something and produces through his action a certain result, but it is the interpretation that matters, and this is always dependent on an individual judgment and mostly on an all too human "bias."

E. A. G.

January 1953

TIME FOR SYNTHESIS

The interaction between man, community, and environment is the eternal theme to which every generation has made its own contribution in its own language of form. It is a perennial transformation through which man and environment are passing; at times slower and with only slightly perceptible vibrations of their mutual adaptation, at others with a quickening pace and a growing intensity. In our own time the tempo of this transformation has accelerated, the scale widened, and the intensity increased at an unprecedented rate. It seems that nothing short of a far-reaching revolution in our way of thinking and of recasting our thoughts in a new mould of social aspirations is the demand of the hour. We are living in a period of one of the greatest human and social experiments, of one of the most fateful adventures in the history of mankind. New methods, new ideas, and new goals are needed which tax the imagination and the audacity of our own and future generations to the utmost.

In spite of everything that seems to point to the contrary, we are experiencing today an ever-spreading, an ever-deepening revolt against the deadening embrace of mass-living and the despotic misuse of their power by uncreative minorities, against alluring and hollow slogans and the theft of self-responsibility. Whatever the disguise in which an uncreative minority tries to impose conformity and obedience, be it as executives of professional groups, as governments of states, as leaders of tribes and clans, or as the

elected representatives of the peoples, they are invariably lagging behind the economic needs, the social impulses, and the longing of the masses for an inspiring environment. A paradoxical situation has developed: although hardly anybody still takes seriously the goings-on in the hierarchy of the inflated and leading nonentities, it seems to be impossible to get rid of them and to put something else in their place. This is not astonishing. These uncreative minorities are kept in power through their own inertia and the lack of new ideas which could give rise to a rejuvenated social and physical environment and a revitalized relationship between individual, group, and environment.

All this is more or less known, or at least it should be known. It cannot be the purpose of this essay to add to the already large number of existing lamentations on these problems another reflection "On Living in a Revolution " or on " Fallen Idols." Rather should we try to lay down principles and to develop methods on the basis of a disciplined imagination and insight, relying less on the few crumbs of knowledge picked up at random and on so-called facts, which are almost always open to different interpretations, than on a comprehensive study of ecological conditions and causes. These are high-sounding demands, which are, moreover, open to an easy criticism. But are they really more ambitious than the dry and seemingly objective inductions from which the most far-reaching theories have been pieced together? And are they a less certain foundation than the unimaginative surveys of social, economic, and goodness knows what factors on which vital decisions are made? I have grave doubts that we do not over-value these inductive methods very considerably. In my opinion they are one of the root causes of our present plight. They perpetuate the analytical approach to innumerable problems, sorting them out into watertight compartments and preventing us from seeing the unity of the whole. But it is precisely the synoptic view which we have lost—has mankind ever really had it?—and which is the paramount need of the present and the future. I do not say that synthesis is more important than analysis. I do maintain, however, that synthesis has been dangerously neglected in favour of analysis, so much so that it is almost completely discarded as "unrealistic" and a dangerous pastime of unbending idealists.

It seems to me that the one-sided over-estimation of analysis is the result of a confusion of thinking. If the analytical, or for that matter the inductive, method contents itself with detailed observations, it is a justified procedure. But if it draws from detailed observations general conclusions without knowing whether all the relevant observations have been made or whether

they have been conducted with sufficient regard to the whole plexus of interrelationships, analysis can lead only to faulty results and in human affairs to dangerous decisions and actions. A similar criticism may be levelled against synthesis and against the deductive method, though with reversed signs. Both, analysis and synthesis, must be applied to every problem on equal terms. Only then can we hope to arrive at a genuine understanding of, and a true insight into, our situation, and to put an end to the superficial pride of our civilization in the Know-how, instead of in a constructive imagination which rests firmly on the Know-why.

The unthinking glorification of the Know-how has assumed, in all parts of the world, proportions which seem to have reached the limits of the disregard for human values. Every nobody thinks he is a somebody if he has the most superficial experience of the Know-how in his own particular field of work. This attitude, which shapes the life of millions of individual beings, has created a mass-hysteria of whole nations who have lost their bearings, not knowing why they are doing this or that or why they are in a state of diffidence and fear. They conduct sociological inquiries on a grand scale; they train innumerable social workers; they introduce intelligence tests; they feed helpless readers with pre-digested opinions and meaningless slogans trumped up in the daily newspapers. And the clinching argument is: we have the Know-how. The Know-how of what? Of producing atom-bombs, or of producing human atoms? This atmosphere of a childlike self-complacency and a pathetic self-confidence is spreading all over the world, but it envelops only the surface values. It does not penetrate to the deeper layers of the human essence. On the contrary, slowly and irrevocably a revolt is taking shape against the acceptance of superficial values as a panacea, against hypocritical slogans, and against mere knowledge misused for anti-human ends. It is a revolt still unknown to the many and only dimly perceived by the few. Its seeds are still covered by the hard crust of expediency and realism. Like many other disciplines, sociology is at a turning point. Its methods are analytical and unsystematic. Unitary ideas are missing, or not recognized as "serious." Social surveys are considered satisfactory if they register sufficient institutional facts and a few unrelated aspects of human behaviour. A determined break with the past seems to be still outside the scope and character of sociology. A glance at a sociological journal or, in general, at recent sociological publications reveals a depressing picture: a hotch-potch of isolated investigations, a lack of leading ideas and, above all, no attempt at clarifying the deeper reasons of the social transformation of the present. The human factor is treated as an

institution which can be investigated in isolation or split up into fragments. Analysis is paramount and synthesis practically non-existent. The knowledge of details accumulates at an unprecedented rate. But will it ever be possible to mould all these details into a coherent whole which can teach us something really valuable about the behaviour of human beings as individuals and as members of a group? The goal of sociological works is almost without exception knowledge of how people react to certain social trends or how they try to implement social needs. It is not a knowledge of why they react in a particular manner or why they follow certain social impulses.

Nevertheless sociology is slowly widening its field of research and observation. Links are forged which weld it to other disciplines such as psychology, economics, and biology. But the methods underlying even this extension of research remain inductive without the antidote of a deductive procedure. They will remain fragmentary as long as the interaction of man with his environment as a whole is not made the proper study of sociology.

The present approach reflects the general attitude to life. Why should one discipline be exempted from the general trend? Sociology is in a particularly difficult position: it is supposed to deal with man as a social being, with just those problems which are perhaps more entangled and obscured than many others. As long as most people are content to work out their own confusion without even being aware of this ambitious foolishness, the path of sociology is not made easier. We believe in eternal truths which are neither eternal nor truths because they are noisily proclaimed as such. In reality they are the sledge-hammer of conformity and the main ingredients of what is usually called the Zeitgeist. They are only too easily interchangeable, and every age lives in the belief to "rediscover" new eternal truths.

What Spirit of the Times you call, Good Sirs, is but your spirit after all, In which the times are seen reflected. (Goethe.)

Eternal truths? No—eternal problems. In the two words Know-how and Know-why is enclosed one of the essential problems not only of our own time but of all times. The How presupposes the What—that is to say, knowing what to do—and this, in its turn, should presuppose the Why—the knowledge of the causes and reasons of every action. Eternal truths—if they exist—are unalterable, static, and in themselves passive. Eternal

problems are the essence of transformation. They are dynamic, and therefore active.

The imperfect appreciation of the unity of the Know-how and the Know-why is in the last resort deducible from the seeming antagonism between knowledge and faith, between the longing for an understandable order of life and the drift into unknown adventures. Broadly speaking, it is the same as the discrepancy between knowledge and insight which is also wrongly regarded as real.

If we want more than mere knowledge, more than familiarity with things, if we want faith and insight, we must not discard knowledge. This would only lead to superstition. Creative insight and faith do not grow in the dry atmosphere of a credulous ignorance or naïve simplicity. They are not the expression of a weakening will for knowledge. They are, on the contrary, the result of a disciplined imagination full of knowledge and of the awareness that knowledge itself is a dynamic and ever-changing force. It is this unity of insight and knowledge which must be restored in a form different from that of former times. It is the restoration of this unity which is one of the essential problems that should guide the approach to social issues.

It may be objected that it is not the task of sociology to investigate problems which have been the domain of philosophy, political science, or psychology. It may also be felt that the formulation of this question is too general to provide a useful guide for social research. I do not think that these objections can be maintained. It is precisely the neglect of the general aspects that has driven sociology into an impasse. These general aspects are very real forces the investigation of which is long overdue and will help to clarify many seemingly mysterious traits of social behaviour. Sociology must extend its field of study to all related branches of learning just in the same way as, for instance, astronomy developed from the simple observation of the sky to a complex scientific discipline absorbing physics, mathematics, and even philosophy into its orbit.

The interplay of knowledge and insight is but one of the formative powers which shapes the social and personal life of man. It is intimately connected with the interdependence of the general and individual will—that is to say, with the unison of man and community. Beyond this it is the interaction of man and Nature in general, and in particular of man and his environment, which should form the basis of social research. In all these investigations it is essential to relate every detail to the configuration as a whole and to trace the effects of the whole on every detail in time and space. To follow the ramifications of a problem only in space or time is more than

useless: it inevitably produces wrong and incomplete results. Space and time together are the only realistic poles between which social studies should move. Only "a union of the two will preserve an independent reality," to use the famous words of Professor Minkowski.

Without an understanding of the interplay of knowledge and insight (or, if other names for the same process are preferred, of science and faith) within the individual being, his relationship to other men as a member of a group and his relationship to Nature and his environment cannot be fully and correctly understood. These three correlations together form the framework within which the secondary problems of man as a social being can be investigated in their true perspective.

The number of these secondary problems is very great and their dependence on each other inseparable. It would be wrong, however, to arrange them in anything like a hierarchical order, for every one of them is intimately connected with the whole set-up of social relations and is to the same degree the expression of the working of man's mind. In this connection a few problems may be selected for a short discussion. Others will be dealt with later.

There is first the significance of the group, the community, and the State. It has been suggested above that we are witnessing a revolt against mass-living and the deadening influence of professional groups imposed by the vested interests of capital and labour, by political expediency and subservience to a convenient conformity. It is a subconscious and still silent revolt against a general levelling down which results from a breaking up of self-responsibility and a weakening of the individual will. This might be the preparation for a readjustment, but it might also be a fateful resignation. Can this state of mind lead in the end to an emergence of genuine communities? Is it desirable to replace the State by communities? And what is the essence of such communities?

Ever since the break-up of the medieval communities, and especially since the Scientific Revolution of the seventeenth century, European man has forged the instruments for new ways of living. But he did not give anything like the same energy or the same intensity of thought to what sort of life these new instruments should shape and to how far his own development would be transformed and re-directed by the impact of these new forces. Overwhelmed by the wonders of technical and scientific changes, and his eyes fixed on the visible transformation of his environment, European man deluded himself into believing that he was the agent of a human revolution. He failed to see that the human factor was losing more and

more in significance and that he had become enslaved to his own creations, to machines, and also to fractional ways of thinking. He lived in the illusion that he was the standard-bearer of progress. He looked down at the civilizations of the East because they did not take part in the irresistible march of science and technology. He did not grasp the true significance of this retarded development: the greater resilience of social man and the subordination of technics and economics to religious bonds and consanguineous coherence. In spite of all imperfections and the growing disintegration to which contact with the West gave rise, the human factor remained the decisive element of social continuity. In spite of internal and external strife, of the all too human disrespect for the sanctity of individual responsibility and self-expression, and other unpleasant byproducts of a traditional society, the essence of a community spirit and of mutual aid was preserved as the basis of the social structure. The ill-fated influence of the expert and of fractional man was staved off more efficiently and for a longer time than in the West.

We are not too much inclined to learn from these differences between East and West. They may be merely a time lag, and western ideas may yet disintegrate completely the cultural complexity of the East. This would be a regrettable development, regrettable not for any romantic longing for the past or a confused glorification of the East, but because the last hope would disappear that the nearness in space and time of societies which have preserved at least some rudiments of community life and other than technical valuations could exert an independent influence. Almost the whole of Asia, possibly with the sole exception of Israel, parts of the U.S.S.R., and to a limited degree Japan, is subject to forces which seem to telescope the Middle Ages, the Renaissance, the Baroque and modern times into one period. Almost the same holds good for the Islands of the South Seas, for large parts of South America, and for Africa. More than half of humanity is exposed to a transformation which in tempo and violence surpasses everything that has gone before. Will these hundreds of millions accept the tenets of the West without making their own contribution in their own language of form and on their own terms? Will they try to imitate as docile pupils the ways of living of homo Americanus and homo Europeanensis? This is most unlikely, the more so as the West has practically nothing to offer in the human and social spheres which would appear overwhelmingly attractive to the rest of mankind. It is much more likely that out of the not yet completely submerged old social structure this part of mankind will mould its own pattern of living, a pattern that is different from that of the West and

from which the West will have something to learn. I believe that the great struggle between society and community, between full man and fractional man, will be fought out first in Asia, in spite of all that seems at the moment to contradict this assumption, and that this struggle will be decided in favour of community and full man.

The West is too deeply entangled in the fallacies of organizational reforms, institutionalized groupings, and material readjustments, all of its own making and all the results of a misunderstood individualism. It is more concerned with economic than with social progress and, if any thought is given at all to human needs and aspirations, it is in terms of adaptation to the exigencies of the State and society, not to the fundamental problems of community and human beings. I do not pretend for a moment that the East, in a fit of angelical idealism, is ready to rid itself of what is bad in its own house; but I do maintain that the social ingredients are vastly different from those of the West, and that there are certain social prerequisites which have preserved a greater immediateness and significance, while corresponding trends have long disappeared in the West.

In this rapidly contracting world such tremendous changes cannot but exert a far-reaching influence upon each other. East and West are not antipodes. They start merely from premises which are in some respects different, but they march towards the same goal, towards the fashioning of a new mode of life with new tools, towards the predominance of social over economic and technical values. The self-confidence and self-righteousness of the West are, fortunately, on the decline. The fanfaronades of the leading politicians and the thoughtless paraphrases of their followers, who are increasing in numbers and accomplished mediocrity, are an infallible sign of this development. Under the thin veneer of national arrogance and immature bumptiousness new forces are taking shape which, weak and diffident though they still are, may grow in strength and develop a new sense of self-responsibility and social awareness. On the other hand, the seeming stagnation of the East—which in reality is no stagnation at all, but the preparation for another departure in another direction—is beginning to show its true significance as the preservation and accumulation of social capital that is to be spent on evolving new forms of living. Different also is the reaction of the East and the West to the interdependence of individual and group and to the interaction of man and environment. In the East, broadly speaking, emphasis is laid more on the group, and therefore more on those qualities of the individual which make him a perfect group-being. In the West, groups which are mostly professional associations are in the main founded

ad hoc for a functional purpose. Those which are formed for spiritual ends occupy the more marginal spheres of life and do not exert an influence similar to that of the professional and functional agencies. Although these groups are supposed to exist for their members, and not the other way round, they tend to increase their power over the whole life of their members by enforcing conformity and making them economically and socially dependent on the association to which they belong. Social and economic expediency is the driving power in the West, while in the East religious and biological unity is the bond between members of a group. Interaction between man and environment in the West is abstract, an I-It relationship; in the East it is concrete, immediate, and based on an I-Thou relationship. Western man fights Nature; eastern man adapts himself to Nature and Nature to himself. These are broad generalizations and, like all generalizations, should be taken with a grain of salt. But I believe that they may help to explain some of the essential differences out of which the different attitudes of East and West to life and environment develop and which are each in its own right destined to play its part in the transformation of the present and the future.

Time for synthesis means therefore a synchronization in space and time of what the East and the West have to give. It also means the emergence of unitary ideas restricting analysis to its proper place and bringing out a never-failing awareness of wholeness, in which the personal and the functional life of man are creatively balanced.

The proper study of Social Ecology is therefore first man himself; then man and group; and man and environment—not to be undertaken in water-tight compartments, but always related to each other in every aspect of their essence and existence. These three problems form the general framework within which detailed research should proceed.

Sociology is a relatively new discipline, and therefore surrounded by an atmosphere of benevolent suspicion, if not of outright disregard. Even to people who should know better sociology has an embarrassing affinity with alchemy. These people apparently believe that a fully fledged sociologist has the ambition to create something like an homunculus who would turn out a perfect social being rationalizing and bettering society, and that this desirable—or undesirable—result depends merely on the skill with which the social alchemist puts the right ingredients in his test-tubes and retorts and succeeds in mixing them into the image of a human

¹ I am indebted to Mr. A. Pryce-Jones for the permission to reprint from *The Times Literary Supplement* the following paragraphs which appear on pages 9 to 14.

being. This may be not too wide of the mark in all those cases where the ingredients of sociological research are laboriously though confusedly collected by a host of untrained field-workers or canvassers, and delivered to the laboratory where "trained" sociologists produce the right amalgam as ordered by their chiefs. Unfortunately this also holds good for the social surveys which have been so characteristic a feature of the social research of the last decades. The results are sometimes imposing: thick volumes crammed with statistics; neat tables, graphs, and charts; and beautifully coloured maps. However, it is difficult with this array of figures, facts, and conclusions to dispense with such doubt as whether the right questions have been put, whether the right answers have been given, and, above all, whether the whole survey has been conducted with a clearly defined aim. Are the results really worth the enormous effort that has gone into such a work?

Every important science has begun as magic. But magic helps only those who help themselves. This challenge was taken up, and science became a sort of alchemy, until finally it reached the stage where it was recognized as a serious discipline. Sociology is now at this last turning point. The proper study of sociology is man in his relationship to society, and, what is even more important, to the community. This transition from the alchemic to the scientific state is a difficult operation, as it involves a knowledge of ourselves which is still lacking. But to deny that for this reason sociology can ever become a science is an utter fallacy. Modern science attempts to discover and investigate enough relevant facts, and to ascertain their correctness by factual observation, and to draw objective, not subjective, conclusions. Sociology is at the point of working out similar methods.

Sociology is the anthropology of the western barbarians. If we investigate a primitive tribe, say, in Borneo, we call this anthropological research; but if we study a suburban tribe in a western country, we call it sociological investigation. In reality there is not the slightest difference between the two. The distinction is merely the result of a misunderstood need for self-assertion on our part. If sociologists were humble enough to apply to our own society the same principles which anthropologists use in their investigations of primitive tribes, an important step would be made towards scientific objectivity and away from the illusion that we know more about the elementary needs and aspirations of our own tribe.

If sociology is to join the ranks of scientific disciplines, it should try to establish a theory and a practice of sociological research which is a dual, not a dualistic approach. The spontaneous and most common reaction

to this demand is: sociology deals with man and society, with human needs and human problems, and consequently with the most elusive concepts of which we can think. This is, of course, quite untrue. Man, society, or community are no more elusive than any other scientific subject. It is much more likely that the main reason why objectivity and objective truths are considered inimical to sociological research lies rather in a certain uneasiness about the application of objective laws. Is this not a misunderstanding similar to the misapprehension of planning which has come to be identified with "planning man" instead of the environment within which man can lead a free and full life? Similarly it is feared that sociology based on objective laws would impose restriction and regimentation on man, crippling his free development. The reply to this misunderstanding should be that man is sacrosanct; he must neither be "planned" nor "institutionalized" according to "sociological" laws. But his environment, the actual space within which he moves and the social space in which he lives, should be recast by a systematic adaptation to the revolutionary changes of our time. The successful way—and it is the only one which holds out any promise of success—is to remove the general maladjustment of mankind by empathy and wise guidance, and to show ways and means by which, out of the human atoms and the disintegrating society that together form the State, full men and integrated communities can be born. Is this not far beyond the scope of sociology? Has not this been the ambition of mankind for centuries? The task of sociology is to deliver the efficient tools the lack of which in the past has made it the plaything of benevolent amateurs and moralizing, self-styled "experts," both cut off from the reality of life.

Has anything like a blue-print for the making of these tools appeared in the recent past—something like a Geiger Counter on which the social reactions of the individual and the community are recorded? So far our methods are still unsatisfactory, and no really efficient procedure has been suggested, but we may find a valuable signpost which shows the right direction if we turn to Tolstoy. In War and Peace he says of Kutuzov that this old man used "quite meaningless words that happened to enter his head," for he had "by experience of life reached the conclusion that thoughts, and the words serving their expression, are not what move people." And he elaborates this flash of visionary and penetrating insight by saying: "Only by taking an infinitesimally small unit for observation (the differential of history, that is, the individual tendencies of men) and attaining to the art of integrating them (that is, finding the sum of these infinitesimals) can we hope to arrive at the laws of history." If we substitute "sociology"

for "history"—and in this context both are practically identical—we are on firm ground, and can continue the way which our instincts, rather than our reasoned investigations, have only dimly outlined during the last decades.

Here we have the real, the promising tools: psychology as the means and the individual person as the starting point. But Tolstoy's statement also implies something else: a two-pronged attack at the social problems, from the top-that is, the group, the society, and the community-and from the bottom, the individual human being. Psychology and sociology are indivisible, and it is fortunate that the appreciation of this fact is spreading. Here again the questions may be asked: Has psychology as a science advanced sufficiently? Can it provide the tools which will enable us to pierce through the outer crust of man's behaviour and to understand "that thoughts, and the words serving their expression, are not what move people"? No science has been perfect from the beginning, nor ever will be. It is always in a state of evolution. The same applies, of course, to psychology and to the science of sociology. It may be pertinent to mention in this connection a statement by Professor A. C. Hardy at the meeting of the British Association in 1949. Though his paper was couched in very cautious terms, it showed clearly the indivisible and reciprocal relationship between sociology and science and the pressing need for scientific methods in sociological research. Professor Hardy said: "Our ideas on evolution may be altered if something akin to telepathy, unconscious no doubt, was found to be a factor in moulding the patterns of behaviour among members of species. If there was any such non-conscious group-behaviour plan distributed between and linking the individuals of the race, we might find ourselves coming back to something like those ideas of subconscious memory of Samuel Butler, but on a group rather than individual basis."

Between the Scylla of dry statistics and the Charybdis of benevolent welfare work and the charity complex of charming old ladies, sociology as a science must steer a determined course away from prejudices and shallow generalities. The danger of being caught is very real. It is the danger of complacency: our social conditions are not so bad after all; of course they should always be improved and we should study ways and means of doing this, but we shall never change man. This attitude is more common than we are inclined to admit. True, we produce graduates in sociology on the conveyor-belt and let them loose on innocent children and adults. But we should be courageous enough to admit that we get the sociologists we deserve. They cannot be better than our educational system, still working full blast

for the production of fractional man, and our knowledge permit. Is the state of western society, or of any society, really unsatisfactory? To judge by surface values is entirely irrelevant. What really matters, and what sociology must begin to explore and to promote, is the attitude of man, of his innermost feeling towards what should be a community but what is still merely a society. Mr. T. S. Eliot gets at the core of this problem when he says in his Choruses from *The Rock*:

. . . you neglect and belittle the desert.

The desert is not only around the corner,

The desert is squeezed in the tube-train next to you,

The desert is in the heart of your brother.

It is this desert which sociology must fight. It is this desert through which sociology must build irrigation channels and help to turn from a no-man's-land into a land full of sensitivity to human values and aspirations. Sociology is only one of many agents in this process, but it will be indispensable if it can rely on the right—that is to say, scientific—tools and on the right brains and hearts to handle them.

There is now much talk concerning the need for community centres, especially in the new towns which this country hopes to build. They are considered as the essential prerequisites of a community spirit. But will they fulfil this task in a "desert," a desert where economic considerations and ambitions are still more powerful than social values? However this may be, they have provided a golden opportunity for a few architects who have presented, on paper, some nice designs for community centres. A far more serious attempt has been made at Boimondau, a small place near Valence in France. Here a model community has been set up by Marcel Babu. It is a pilot experiment with all the shortcomings inherent in these enterprises. It rests on the principle that between the State and the individual the community must be interposed, a demand which amounts to delegating to the higher grades of the administration only those powers which are freely given by the lower ones. Here is a clear programme for the elimination of the power of the State over the citizen and for the development of a community in contrast to a society. Beyond this it is possible that the experiment touches the most important of all the fundamental problems of today: How can the gap be bridged between the personal and the functional life of man—i.e. how can fractional man develop into full man? According to Babu, "a man cannot be a bad workman and a good father." Boimondau must be a paradise for open-minded sociologists, an "open-air" laboratory, just as in other respects another country at present offers a

unique opportunity for the study of how widely different social habits and standards can be welded into one coherent unity. This country is Israel, with her influx of thousands of seemingly unadaptable immigrants. These two examples have been mentioned as illustrations of the real problems which sociology as a life-centred discipline should tackle in a scientific spirit.

Social surveys are nowadays the indispensable tools of social studies. These surveys are mostly based on questionnaires and on a scrutiny of the answers given by the people selected for obtaining information. But is this information the true expression of their thoughts? Are these thoughts, "and the words serving their expression," really "what move people"? Is there not a grave danger that most surveys give a wrong picture, and that therefore sociological research is only too often based on wrong assumptions? And will this not continue as long as knowledge of ourselves is as vague and incomplete as it still is today? It is not only difficult but impossible to suggest a way out of this impasse—under present conditions, that is to say, on the basis of our present insight into the deep-lying urges of men. How far psychology will advance during the next decades, we cannot know; but without psychological insight we are in the unfortunate position of an architect who has got to build a house in the knowledge that its foundations are somewhat shaky. As long as we are aware of this deficiency, and proceed in our sociological studies with the utmost caution, some useful results may be expected and new problems may be discovered which will give psychology a chance of a fresh departure.

On this uncertain basis studies in the interaction of individual and group and of group and environment are more like explorations of unknown lands than exact scientific investigations. A disciplined imagination and a humble empathy may, in many cases, yield better results than mere analytical spadework, however important and essential this may be.

It has been suggested above that society, or for that matter the State, should be split up into communities, and that out of these small units of living and working a new spirit of social awareness may develop. Is this expectation merely wishful thinking, an escape from the realities of life? Is it a vacillating between the dreams of a lost paradise and the lure of an utopia?

Under present conditions a group is a functional association based on professional interests which are shared in common by its members. As far as such groups practise "mutual aid" at all, it is impersonal assistance rather than personal devotion and fellow-feeling. Assistance is extended

to members through the personally disinterested agents of an organization and on the merits of the "case" in the light of the relevant statutes and regulations. It is not only the unwieldy size of these organizations but above all the spirit of expediency which makes a genuine and personal relationship impossible. Personal attachment and friendship between individuals who might be members of the same group remain a purely private affair. They do not and cannot exert an influence which would instil a spirit of community into the organization as a whole. Even groups which would appear to derive their raison d'être from altruistic, compassionate, or spiritual motives, such as religious associations, are unsatisfactory as efficient agents of personal attachment and community life. They have an air of unhelpful detachment about them which is most obvious in monastic orders. They are cut loose from the reality of life, and their influence is practically nil. In a social sense they are "self-sufficient"; in a spiritual sense sterile; and as a vanguard of a human revolution unthinkable.

Wherever we look there is a barren desert. But it is a desert full of mysteries and hidden treasures. Just as we begin to understand that the appearance of the surface of the desert is deceptive and that deserts can be made fruitful by bringing to the surface the deep-lying natural resources, so the social desert can be made to blossom and the undeveloped human resources can be freed from the layers of frustration and fear of self-responsibility. The reclamation of the natural and human deserts demands a break with the past methods. Former generations had the fantastic idea of extending the basin of the Mediterranean so that it would flood the Sahara. This is a "solution" typical of the last century: results are expected by the extension of frontiers—in this case of the frontiers of the sea-basin—and by the use of what can be seen and of what is easily comprehensible. It is a sort of "imperialistic" solution and an external treatment of symptoms, not of causes. The promoters of this idea did not know, and with their limited knowledge and understanding could not know, that there is water in the Sahara itself hidden deep in the ground, or that the dew can be collected and made useful by a careful and systematic procedure. Desert ecology is the sesame that gives access to the mysteries of the desert. It is the same with the social deserts. Gigantic projects for human rehabilitation and blueprints for social reorganization are unrealistic. They may still remain for a short time the favourite propaganda tools of immature statesmen and politicians and the playing-fields of international organizations, but they will not produce any results. Only by applying principles of Social Ecology can the social desert be reclaimed, and only by doing it with infinite care,

tact, and insight can we hope to make it a land of social awareness and creative self-expression.

The old communities—a small tribe, a clan, a joint family—were held together by religious bonds. The towns of the Middle Ages, which are perhaps a little too uncritically praised as ideal communities, sheltered the life of their citizens by religious, civic, and economic associations, and were small in scale. But even these communities did not free man of his fear of independence and did not deprive him of his aggressive spirit. He relied on the security of group-life and group-responsibility. He remained still halfawake, and a veil woven of ritual, conformity, and self-preservation still prevented his independence and consciousness as an individual. And yet a considerable group-cohesion developed, though it is extremely difficult to say whether this resulted in the first instance from a longing for personal security, from fear to be an "outsider," or from a genuine faith in community life. Quite a number of valuable theories which attempt to explain the deeper reasons for living in a community have been put forward. It may well be that they are not too wide of the mark. But we should be very careful in their evaluation, for none can fathom the real meaning of the "infinitesimally small unit for observation"—that is, "of the individual tendencies of men "-now that these groups and the men forming them have long since ceased to exist. It is somewhat different with primitive tribes, clans, and joint families who are still available as units for observation.

However, it would appear that there are two essential characteristics which are common to all these communities, making them living realities. There is first the near and personal relationship between the members, the immediateness of life, and the small size. Then there is the all-pervading religious spirit and the identity of man and Nature. Man is embedded in Nature, and every natural phenomenon or event is experienced directly, not in our abstract manner of detached observation. This is particularly the case at the dawn of history and far into antiquity. It is still an essential element of group-life in existing tribes and clans, and it is also the case, though with certain qualifications, for the civic communities of the Middle Ages which, in spite of the strong hold of the Church over the minds of men, are, in comparison with the early and primitive communities, in many respects more "rationalized." We should not fall into the other extreme and idealize these communities as perfect examples of brotherly love and mutual aid. Economic expediency and other practical considerations have certainly played a major rôle. Nor should we be romantic laggards and

wish to restore communities based on similar values. The communities of the future must be given a new form, a new content, and a new purpose.

It may be asked: Why should we have communities at all? Is there no other avenue leading to social integration in a mass-society? This question may be countered by asking: What else is a cogent and desirable goal? Can the State be made a vehicle of personal relationship and social creativeness? Our answer is: If the State would undergo such a transformation that these two postulates can be fulfilled, it would no longer have any resemblance to the State we know. It would cease to exist in anything like its present form. Further, as long as no other serious alternative is suggested, communities remain the only form of living which can give purpose and happiness to our existence. It is symptomatic that all reformers at all times who were concerned with the supremacy of human and social values were agreed that communities alone could give any guarantee for attaining this goal, while the political reformers since the Renaissance concentrated on a reorganization of the State, and in the end managed to forget the existence of human beings. In brief, if we believe in the supremacy of the State over its members we should have the courage of our conviction and make the State the sole arbiter over the life of its human automata. But if we believe that the State exists for the individual beings who live within its boundaries we should do everything to reduce the power of the State, to build up a new structure from the bottom, and to develop innumerable communities as the expression of human dignity and purposefulness. What had been formerly the State would then become a functional agency. The sovereign States would gradually disappear and with them the main source of international anarchy. To build a new social structure by imposing a political organization from the top is a dangerous illusion. An organization, it is true, can be imposed from above. But what we want and what we need is a living organism, not a scientific management of "massification."

Like all works of man, the old and the primitive communities are imperfect. What they can teach us is not so much what we should do under totally different conditions, but what we should avoid. Some timeless characteristics will always be inherent in the conception of a community: mutual aid, immediateness of personal relations, smallness of scale, and reciprocal adaptation of man and environment in a spirit of understanding and insight, not as a fight of man against Nature. But what we should not repeat is to allow a community to fall under the influence of a leader. Even if this word had not a particularly ominous ring nowadays, the leader-principle as such is incompatible with the spirit of a community.

It is incompatible because it upsets the dynamic equilibrium on which the harmonious working of a community depends. It creates and tends to maintain economic and social differences, while it impedes diversity and emulation, levelling them down to an obedient conformity. Around the institution of a leader, even if the term of office of the individual leaders is restricted to a short period, cliques develop which grow gradually into the rôle of institutionalized minorities. In this way a structure is shaped which can but lead to the lifeless organization of a State, and consequently to the negation of a true community spirit.

It may well be that a mass-society cannot exist without a leader and that this leader must be dependent on the cliques which surround him, though the people and the leader himself may live in the illusion that their State is governed by the people themselves and the leader is the true representative of the nation. And it may also be inevitable that in a mass-society a high degree of illusion is a necessary ingredient of survival. However, if this is so—and unfortunately there seems to be no escape from these unpleasant consequences of the leader-principle—then other social forms must be found, forms which give reality and directness to life, split up the inarticulate masses into small groups, and eliminate the uncreative influence of the leader and the ruling minorities.

When we look over the thousands of years of known history, we discover the astonishing fact that men have never been without a leader, for it is certainly astonishing that men have always succumbed to those who robbed them of their own responsibility and that they have always been ready to sanction this theft by surrounding their rulers with the mystique of symbolism, and even divine power. This development dates back to the dawn of history when men began to apply their ideas of the universe and of their earthly environment to their own social world. But at the same time they came to project their own social order on to the universe, thus finding reassurance and confidence in the seemingly identical hierarchy of the heavenly bodies. The sun was the king or the king the sun, and just as the sun was surrounded by the other heavenly bodies, the king had his attendants, the priests and the officials. The earthly and the heavenly society were modelled one upon the other, and a reciprocal dependence developed in which the credentials of the earthly rulers seemed to have been handed down from heaven. Could any mortal man have the audacity to defy this authority, which derived its strength and justification from heaven and earth? With slight modifications this "mutual insurance society" has lasted in all parts of the world until the ever-growing scepticism and the

scientific spirit kindled by the Scientific Revolution, and fanned to a fierce flame by new social aspirations, revealed its hollowness. But we should not delude ourselves; the old powers have not been finally vanquished. They are on the retreat, but their influence upon men is still strong. Men still believe in the indispensability of a leader; they still accept a social hierarchy almost without any resentment; and they are still blinded by the mystique of symbolism and its inevitable accompaniment of an alluring pageantry.

And yet the old symbolic values are losing their significance, and with them the leader-principle, which has grown out of and rested for thousands of years on the unquestioning acceptance of these values, is fading away as a social factor. Fundamentally there is no difference between a prehistoric leader or the leader of a tribe and a modern president or a king. It is but a difference of degree in substance and in scale. And it matters only very little whether the leader has been thrown up by a parliamentary procedure or by totalitarian methods. He still profits by the symbolic importance attached to his office, though not to his person.

We have witnessed in our own time the anti-climax of the leader-principle with all the confusion of a meaningless symbolism, and we cannot be sure that this was the last flame, which is usually the highest. But the sustained conviction has gone out of these social eruptions. They have degenerated into a short-lived mass-hysteria and lost their inner certainty.

The decisive factor is the growing disintegration of the old symbolic values, the very prerequisites of the leader-principle. Mankind is longing for a new reality, for new values and for a new social relationship. A general disillusion is spreading, a disillusion about the incompetence of governments and leading statesmen, about the emptiness of official pageantry and their theatrical ado, and about the hollowness of the symbolic values in the name of which people are exhorted to die or to live as human atoms.

Thus the very foundations of the old social structure are breaking down. Men crave to take a direct and personal part in shaping their social conditions and to give their lives a new essence. They feel that this can be done only by building up a social fabric from the bottom upwards, not by imposing a somewhat modified political system from above. The actual problem is therefore to find a solution for the integration within a large framework of small social units in which personal and direct participation in all activities is possible for everyone. This is a perfectly normal development. The existing units of the States become increasingly senseless in a shrinking world. Therefore the very smallest units and the very largest unit must be brought into a dynamic equilibrium. The intermediate units of the States

have lost their justification as guardians of social integration. Were they to continue in any form other than functional agencies, their citizens as individual personalities are doomed to a slow grinding down by the impersonal and anti-human claims of the State.

Everything that is interposed between the individual and the world as a whole is artificial, a man-made incident of history—leaders, States, frontiers. All the abstract concepts attached to them are obstacles to the emergence of man into the full light of self-responsibility and independence, of world-consciousness and intimate social contact.

Old and primitive communities were held together above all by their faith in a divine power. Practical considerations played their part, but were of secondary importance. Their unity was therefore due, in the first instance, to outside influences, however imaginary these may have been. It was a flight from one's own independent responsibility and a reliance on powers which men created themselves out of the raw materials of their own imagination. The gods were in the hands of men, but men did not realize, and did not want to realize, that they were enslaved by their own creations. Although the gods failed for thousands of years to fulfil the expectations of mankind, in spite of all the sacrifices and all the prayers offered to them, and in spite of all the crimes committed in their names, men preferred to live on a cheque on the future and on guidance from outside rather than on fulfilment in the present through their own unaided efforts. Every community was fundamentally "extrovert," projecting its aspirations and hopes for protection, even from its own shortcomings, on to an external symbol. This is true also of clan-communities which worship a totem animal. Although the totem animal is a member of the clan, its symbolic status puts it beyond the ken of the mortal members.

We have every reason to believe that the communities of the future will be "introvert" communities, that they will dispense with all external symbols and make the direct, sincere, and immediate relationship between their members the very essence of their existence. They will be spiritually, mentally, and socially "self-sufficing" and shoulder the greatest burden of all, the burden of self-reliance and of the supreme strength of mind and character through standing alone.

Impossible? An utopia? I do not think that it is a greater utopia than, say, the prophecy of our present situation by a man of the Middle Ages, or even by a contemporary of Newton, would have been. Moreover, can anybody who is not a hopeless "realist" maintain that our present society, organized in sovereign States, can survive if it continues to develop on the

old lines? Can anybody sincerely believe that humanity is not heading for disaster, if the present anti-human trends persist? Where is the firm basis on which we can build a new social structure? There are only two starting points—the individual human being and the unity of the world. Everything in between is of doubtful value, split up by human and political frontiers, deadened by shallow tradition and robbed of its creative essence.

The only alternative to the State are communities small in scale and dense in structure. They are the very beginning of a social rejuvenation because they respond to fundamental human needs: to living together, to working together, and to experiencing together. They can grow organically from elementary aspirations and they do not demand pompous organizations. Among the elementary actions of mankind which have sprung up all over the world in different parts and at different times the urge to associate not only for practical but for ideal reasons, and to form communities, is perhaps the most lasting and the most promising. We must start again at the grass-roots of existence and bring the human race as a whole to the consciousness of global unity. The individual being and the world as a whole are the two poles between which will pass the sparks of a new social inspiration.

The reliance on external symbols as unifying factors is equalled by the fear of external enemies. These enemies may be real or products of imagination, personal or impersonal, individuals or groups; in any case they can be used as a welcome expedient to arouse the defensive—or more often than not the aggressive—spirit of one group against another group. "On Living without a Bugbear" would be an appropriate title of a comprehensive study in mass-psychology. Let us imagine that humanity would wake up one morning only to find that all hostile forces had disappeared and that its energies cannot be any longer directed against something or somebody. What would happen?

I imagine that the greatest confusion would break out. Despair and diffidence would spread over all countries and men would feel as though they had been forced to live in a vacuum. The last vestiges of unity would disappear and total anarchy would result. This is not a mere joke. It is a serious possibility, if this ideal state would become a reality. And it is not a mere witticism to suggest a study "On Living without a Bugbear." The investigation of how previously aggressive energies, under whatever disguise they may have been hidden, can be turned into creative and peaceful efforts is no mean task, the less so as this would have to take into account the fact that none, none whatsoever, of the aggressive tendencies are to remain. If

we could succeed in producing something like a blue-print for total peace—it is somewhat risky to use the word "peace" nowadays, but I mean it without any political connotations—we might at least begin to see the faint rays of a new age and the utter folly of our present behaviour.

Groups, nations, and national blocs are united against external and internal enemies, against other racial and religious groups, against other political, social, and economic ideologies. A large part of the world is now almost convinced that the racial policy—if this term is not too euphemistic—of the Nazis was not only criminal but utter nonsense. A large part of the American public is also almost convinced that the Negro problem is at least a dilemma. The West is ranged against Communism, but if one were to show up all the brave Cold Warriors as what they are in reality—namely, poor human beings gripped by fear and a loss of self-confidence—and if one were to demand a clear statement of their aims and of the real reasons of the inherent wickedness of Communism, the answer would reveal, as in all the other examples, a frightening confusion, a lack of knowledge, and above all a purely emotional hostility to the other camp. The same holds good for the reverse side of the picture. "We are against something" is the battle-cry of everybody.

In our own personal lives we experience the same. We need a bugbear as an excuse for our own failures and shortcomings. How few have the courage and the incorruptible insight to look in themselves for the explanation of their aggressiveness towards others. How rare is it to find a man who admits that his grievances against others are of his own making. It is all over again the same projection on to imaginary and sometimes real external factors. The "unity" principle in these individual cases is the seeming restoration of self-confidence and the preservation of one's own individuality.

Without pressing the conclusions too far it would seem that internal unity—the unity of groups and the unity of one's own personality—depends to a very high degree on external influences. Consequently it cannot be achieved by internal forces alone. This is at least the unavoidable impression if we try to interpret only the history of the past, and even then this interpretation may be faulty. And yet there seems to be a common denominator: the curtailment of self-responsibility; and, as a consequence of this self-effacement, diffidence, and fear; and as a further consequence, aggressiveness and the need for an object of this aggressiveness. A paradoxical situation indeed: something positive, the unity of groups and the unity of one's own personality, are the result of a negative constellation. Or

are we deceiving ourselves if we speak of the unity of groups and personalities? Is this unity perhaps an illusion, or has it merely a superficial semblance to a genuine unity? What do we mean by unity? Is it the same as unitedness? Is it the same as a total identity in purpose and action, a total identity of the general and the individual will?

In our present state of knowledge and insight a final answer cannot be given. But it may be suggested that genuine communities which relied on their own internal strength without any form of external compulsion have never existed. They could not exist on the material plane of everyday life. When they came into being on the immaterial plane of religious brotherhood, as small groups of disciples around the founders of religion, they lasted as integrated communities only for a short while and mostly did not survive the death of the master. They split up into numerous fragments, sects, and denominations, orders and Churches, and the essence of the community-spirit disappeared.

With this evidence against us is it not a hopeless ambition to speak of genuine communities as units of living? That something did not exist in the past is no valid reason why it should not exist in the future. We cannot predict the world-wide effect of the transformation in the social and human sphere, but we can indicate trends which are likely to persist or to emerge. These trends are of a dual nature: there are first the negative trends. The old social and political concepts and forms are disintegrating. National frontiers are losing their significance. Ideological frontiers cut across them and intensify internal dissensions. The national States, with their organized framework within which the social life has proceeded for innumerable generations, are absorbed into the unity of the world and undermined from within by the antagonism of conflicting ideologies and the growing power of the vested interests of capital and labour, of the rational demands of science and technics, and the emotional demands of social aspirations and personal security. The instability of the order of life in general, the loss of easily understandable laws according to which the individual human being can run his life, create not only a spreading diffidence and unrest but the very conditions for a flight into the deceptive security of conformity and for a retreat from self-reliance. The fear of freedom, the root-cause of this retreat, is not to be healed by social tolerance and restraint alone. Something more positive is needed. Unitedness is the supreme demand in our present situation. The appeal of the idea of cause and effect which was so dear to the last century is disappearing, and what seems to emerge in its place is the notion of uncertainty. The last vestiges of a finite universe on the

Copernican model are fading out and men must readjust themselves to a new infinity. The break between imagination and the illusory accomplishments of the analytical intellect is complete, and has created a vacuum in which life as a whole seems to have lost all means of orientation, while short-lived functional gains are regarded as final and general results and almost as eternal truths.

The positive trends show a corresponding variety of reasons and forms. They can be comprehended only dimly because they are still overlaid by the old social concepts and patterns. But a silent revolt against the futility of a life impoverished by a superficial tradition and lack of daring is spreading. It is a revolt of the mind still confused, and not yet fully conscious. But it is infinitely more effective and creative than any political revolution. There is, first, a certain tendency which is present in all parts of the world to form small groups on the basis of personal relationship. It is symptomatic, to choose just one example at random, that such a sincere social scholar and philanthropist as Seebohm Rowntree recommends in English Life and Leisure that religiously-minded people should "form themselves into small groups, similar to Communist cells." This trend is the spontaneous expression of a longing for directness and intimacy of life. It is a withdrawal for a new beginning. In general, there is an increasing readiness to accept the infinitely large, the new infinity, as a given fact to which we must attune ourselves, and to see in it the indispensable counterpart to the infinitely small, the two poles between which both our world of imagination and our world of reality are moving. Just as these concepts are losing their frightening aspect, so it is with the notion of uncertainty. This "replaces the concept of the inevitable effect by that of the probable trend. Its technique is to separate so far as possible the steady trend from local fluctuations. The less the trend has been overlaid by fluctuations in the past, the greater is the confidence with which we look along the trend into the future. We are not isolating a cause. We are tracing a pattern of nature in its whole setting. We are aware of the uncertainties which that large, flexible setting induces in our pattern. But the world cannot be isolated from itself: the uncertainty is the world. The future does not already exist; it can only be predicted. . . . History is neither determined nor random. At any moment, it moves forward into an area whose general shape is known but whose boundaries are uncertain in a calculable way. . . . The will on the one hand and the compulsion on the other exist and play within these boundaries." 1

¹ J. Bronowski, The Common Sense of Science.

In other words, this means that we can now "chance" our life, as it were, on a scientific basis and that we must learn to live in improvisations. Finally, there is the growing scepticism about the infallibility of the analytical intellect and the rising demand for synthesis, disciplined imagination, and insight.

All these trends are overlapping, and it is, in our present situation, almost impossible to distinguish clearly where the negative trends end and the positive trends begin. However, it appears that the tendency most characteristic of the negative trends is a withdrawal from isolation, from reliance on external factors and from analysis; and that the characteristic of the positive trends is the search for a new reality and the still reluctant acceptance of infinity and uncertainty as formative powers of a new pattern of living.

If we accept these emerging trends as guides into the future, communities as the nucleus of a new social structure seem to be the only solution. But these communities of the future should not derive their raison d'être from external pressure and external symbols. They should draw their strength from their own inner coherence. Just as man is outwardly limited but inwardly unlimited, so communities can fulfil their task as social rejuvenators, if they are self-reliant and introvert. Only then can they be open to the outer world, while external pressure and limitations would make them rigid and finally uncreative. As Goethe said in the Introduction to the Metamorphosis of the Plants: "Everything external is given to a gradual and early death while underneath life weaves its creative fabric."

I expect that quite a few people will think this argument too "philosophical" and highly speculative. They may be right. I recommend those who dislike particularly the prediction of the positive trends to fall back on the negative side of the argument. It is mostly easier to appreciate criticism than to accept positive suggestions. And I would recommend those who dislike the interpretation of the negative as well as of the positive trends to put forward counter-arguments and other solutions. This would be a constructive contribution to the most urgent problem of our time, and nobody who is not afraid of ideas should shrink from this responsibility.

In the modern world Community does not mean unitedness but conformity. The result is the unthinking mass-being and a general levelling down to the credulous and purblind acceptance of pre-digested superficialities. The goal is the attainment of a high level of mediocrity and the toleration of dominant minorities and governments composed of expediency-mongers and a few outstanding nonentities. It is especially in war that a

respectable citizen has the patriotic duty to stop thinking. And as we are still, or again, in a state that resembles dangerously a war, we are in the unfortunate position of subordinating social values to the "iron expediency" which is expected to guarantee our survival. However this may be, the fact remains that we have got to pass through this stage in our struggle for a new relationship of individual and group. It is a world-wide experiment in practical sociology which is, alas, blurred by the noisy antics of nationalism.

Groups in their present constitution and of whatever complexion produce invariably an idiosyncrasy against other groups. The members of such a group are not free to form their own independent judgment. They are poisoned by group-bias. These groups need not be organized associations. On the contrary, they are mostly based on an emotional affinity, on the dislike of the unlike. They can be the result of racial or religious, of national or professional, similarity of outlook, but in any case they derive their consensus of opinion from the hostility towards other groups. Even the cyclists are against the motorists. The disintegration of these uncreative and anti-social conglomerations is one of the basic prerequisites of the rise of communities. Their hold over the minds of men is contemptible and prevents the unbiased understanding of our present situation. The individual being must be freed from this dictatorship which speculates on the lowest instincts of the unthinking many. This group bondage can be broken if the rôle of the State, the unintentional or intentional promoter of these trends, is restricted to that of a functional agency and its place filled by innumerable communities without group-bias and without external pressure and symbols.

The reciprocal dependence of man and community cannot be separated from the interaction of community and environment. In normal usage environment means the external conditions of life, and in particular the immediate surroundings within which an organism lives and which determine its structure and growth. This definition is of course rather general, but not too general for our present purpose. It makes possible a unified assessment of the manifold factors which make up the environment, and it does not put any particular limits on the extension of the environment.

The sociologists of the nineteenth century were the first to sort out the problems which have a bearing on the social implications of the interaction of man and environment in anything like a systematic manner. Their approach was, quite naturally, determined by the ideas of their time: by an over-valuation of the economic factor; by strict adherence to the principle of cause and effect; by the tendency to rely above all on analysis

and a rather piecemeal interpretation of historical trends; and by the restriction of environmental influences to the more immediate surroundings. Thus the notion of Place, Folk, and Work was conceived as a system of observation. Or, in purely human terms, societies were investigated under the fourfold conception of People and Chiefs, Intellectuals and Emotionals. For their time these ideas were valuable especially because they tried to bring some sort of system into a hitherto rather confused approach to social problems and helped to make people see their actual implications. But there is no reason to be still enthusiastic about these theories as tools of social research into our present situation. We have moved on quite a bit in the meantime, and these theories are now rather out of date. Those who still preach their validity are not on firm ground. They resemble a worker who clings stubbornly to building a modern motor-car with old-fashioned tools instead of with the help of machines.

The criteria which were formulated by the early sociologists are interesting aspects of the problem, but they are rather arbitrarily selected without reference to a common denominator. Therefore they give not only an incomplete picture, which would not be too bad after all, but in many respects they are wrong because the premises are faulty or because details which are not worked out in relation to the configuration in its entirety can never produce an integrated whole.

The character of the interaction between man and environment has undergone tremendous changes in the course of history. What is meant by this seemingly platitudinous statement is the following: great and lasting transformations of the natural environment by man's efforts have been made in the past. The face of the earth has been changed over vast parts of the world and a second man-made nature has overlaid the original structure. And yet it may be doubtful whether the transformation of the natural environment which is still hidden behind the veil of the future will be greater than the achievements of the past. It may be that the past and the future changes will be different in degree but not in substance. All this is in this connection irrelevant. The decisive change has taken place in the attitude of man to his environment and in the spirit in which he confronts his position in relation to the environment and strives to alter it. It is wrong to attribute this change to a greater knowledge of the workings of Nature. It is another kind of knowledge, another direction into which knowledge fortified by insight is moving.

If we were to express the basic character of this transformation, we might say that the interdependence of man and Nature has changed from an

I-Thou to an I-It relationship, and that this is intimately connected with the different conception of the universe which man has formed in different periods. Here we have the common denominator which determines throughout the ages the character and the essence, the climate of the interaction of man and environment, its scale, its intensity, and its consequences.

As long as man was deeply embedded in Nature and every natural phenomenon had a symbolic significance, the man-environment relationship was more like a mutual adaptation than a one-sided conquest of Nature by man. The replacement of natural features was rather a modification in defence against external dangers than a deliberate attempt at dominating Nature in a spirit of aggressiveness. The universe was conceived as finite, and the heavenly and the earthly orders were interdependent, the one borrowing characteristics from the other. Man's interference with his natural environment was more like "setting his own house in order" than an adventure into the unknown. It was a withdrawal, conscious and subconscious, from the hostile forces of the outside world. Nature may be evil and dangerous, but this did not exclude that man and Nature were on intimate terms, like near relatives who are also sometimes exceedingly unpleasant. If Nature threatened to getout of hand, magic was expected to help. It was an I-Thou relationship with all the ups and downs inherent even in the closest association, and it was also a total relationship in which man was dependent on the universal character of the environment, being himself an integral part of Nature and dimly aware that there was nothing which would not influence in one way or the other his own existence and his attitude to the surrounding world.

Since the Scientific Revolution Nature has been de-personalized and the awareness of the total relationship between man and Nature has been fading out, until in the nineteenth century it was almost completely forgotten as a "historical constant." The criteria applied to the interaction of man and environment were narrowed down to a few more or less unrelated details selected at random, and what we have called the "common denominator" was discarded as "unrealistic" and "too general." It was regarded almost as a superficial superstition. This is a perfectly natural development, for the change-over from an I-Thou to an I-It relationship was bound to leave, especially in the beginning—and we are still in the inceptive stage—a vacuum. But it by no means follows that an I-It relationship, in spite of its growing abstractness, can dispense with the notion of a total interdependence extending from the most immediate environment to the structure of the universe. This latter has always played a very considerable part in

the attitude of man towards his environment because the ideas of space and time and of function and form which man put on the universe were the reflection of his concepts of the earthly environment and vice versa. We can follow this development through the whole of known history. One example may stand, in this connection, for all the others. When the geocentric was replaced by the heliocentric universe this was not only the outcome of actual observations and calculations, but of a new conception of space and of man's place in the universe. On the other hand, this change has a profound influence on the works of man. In architecture it means, especially in the Baroque period, a new relation between space and matter. Infinity was sought through the continuous movement of uniform matter, motion, and excitement, and the urge to burst the enveloping shell of the buildings created structures and forms which had been unheard of in the Middle Ages and even in the early Renaissance. In town-planning it means the introduction of the perspective view and of complicated systems of fortifications. In regional planning it means the widening sphere of influence of urban centres and the final subordination of the countryside to the growing cities and towns. In the international sphere it means the discovery of new lands and the emergence of forces which in our time have led to a shrinking of the world at a breath-taking pace. Such factors must be taken into account, if we want to understand the I-It relationship between man and environment, for they all have a more or less direct bearing on his immediate surroundings and the interdependence of group and individual.

We must pause for reflection. Have we modern men really so far advanced that we live without symbols and without an intimate and rather personal relationship to Nature? On the face of it it seems we have. But is this not a deception, and are the vestiges of old rituals not still with us? When an Etruscan town was founded the course of the wall was traced by a plough in a sacred ceremony and a bull was sacrificed. Something similar took place in China and other countries. When today an important building is erected, the foundation stone is laid with a certain ceremony, and when a new town is founded trees are solemnly planted and instead of the priest a Minister comes along and demands as sacrifice from his hearers that they should listen to his platitudes. Ritual is still there, but it has lost its deeper significance. It is hollow and for modern use it has been "streamlined." Yet the present ceremonies are still a weak link to the total relationship between man and environment, distorted and almost meaningless though they may be, but not yet quite cut loose from their original symbolic

value. In the planting of trees or in the dedication address of a personage who is strangely enough regarded as of some importance there lingers on the I-Thou relation and a silent protest against the growing abstractness of life.

And another reason why we should pause for reflection: our habit to indulge in generalizations makes us forget that about half, or very likely even more, of the world's population has only superficially, if at all, been touched by the I-It relationship and that their ways of living and thinking have retained many features which are conducive to a personal, direct, and immediate contact with their social and physical environment. They have not passed over the threshold where life becomes abstract and speculative. Their relation to their work is personal; their concepts of space and time depend on concrete orientations and on direct experience of phenomena which have a personal and emotional value; and their social space is mostly identical with the biological group of which they are a member. Personal life and functional life have not fallen apart, as in our western civilization.

We should beware not only of generalizations which are only too often nothing else than wish-dreams, but also of the over-estimation of time as an agent of change. Is there really a fundamental difference between a peasant of the Neolithic period and a peasant living in a remote part of China or India? The life of the "modern" peasant proceeds just like that of his early predecessor within a narrow sphere; he is bound to his work, which is for him the whole of life; he tends to reason from the concrete and to arrange his life in accordance with concrete events; and he uses tools which are often not too different from those of early man. He is embedded in the rhythm of Nature and in the dense and integrated social structure of his group.

I am reminded in this connection of thoughts which Martin Buber, the most human of all modern philosophers, expresses in his profound work I and THOU. He says:

[&]quot;In the beginning is relation.

[&]quot;Consider the speech of 'primitive' peoples, that is, of those that have a meagre stock of objects, and whose life is built up within a narrow circle of acts highly charged with presentness. The nuclei of this speech, words in the form of sentences and original pre-grammatical structures (which later, splitting asunder, give rise to the many various kinds of words), mostly indicate the wholeness of a relation. We say

'far away'; the Zulu has for that a word, which means, in our sentence form, 'There where someone cries out: O mother, I am lost.' The Fuegian soars above our analytical wisdom with a seven-syllabled word whose precise meaning is, 'They stare at one another, each waiting for the other to volunteer to do what both wish, but are not able to do.' In this total situation the persons, as expressed in nouns and pronouns, are embedded, still only in relief and without finished independence. The chief concern is not with these products of analysis and reflection but with the true original unity, the lived relation.

"The elementary impressions and emotional stirrings that waken the spirit of the 'natural man' proceed from incidents-experience of a being confronting him-and from situations-life with a being confronting him—that are relational in character. He is not disquieted by the moon that he sees every night, till it comes bodily to him, sleeping or waking, draws near and charms him with silent movements, or fascinates him with evil or sweetness of its touch. He does not retain from this the visual representation, say, of the wandering orb of light, or of a demonic being that somehow belongs to it, but at first he has in him only the dynamic, stirring image of the moon's effect, streaming through his body. Out of this the image of the moon personally achieving the effect only gradually emerges. Only now, that is to say, does the memory of the unknown that is nightly taken into his being begin to kindle and take shape as the doer and bringer of the effect. Thus it makes possible the transformation of the unknown into an object, a He or a She out of a Thou that could not originally be experienced, but simply suffered.

"There is a cosmos for man only when the universe becomes his home.

"Every great culture that comprehends nations rests on an original relational incident, on a response to the Thou made at its source, on an act of the being made by the spirit. This act, strengthened by the similarly directed power of succeeding generations, creates in the spirit a special conception of the cosmos; only through this act is cosmos, an apprehended world, made possible again and again. Only now can man, confident in his soul, build again and again, in a special conception of space, dwellings for God and dwellings for men. . . . If a culture ceases to be centred in the living and continually renewed relational event, then it hardens into the world of It, which the glowing deeds of solitary spirits only spasmodically break through. Thenceforth smooth

causality, which before had no power to disturb the spiritual conception of the cosmos, rises up till it is an oppressive, stifling fate.

"The world of It is set in the context of space and time.

"The world of Thou is not set in the context of either of these."

Sociology, if it is to be more than the mere amassing of unrelated facts, must re-orientate its methods and widen its sphere of investigation. It cannot any longer neglect the general in favour of the particular. It must include in its studies subjects which have hitherto been the exclusive domain of philosophers, just as scientists have invaded the precincts of philosophy. The total relationship between man, group, environment, and universe is its proper field of work. Time for synthesis means therefore not only the more or less passive acceptance of the emergence of unitary ideas, but also the determined attempt at an indivisible interpretation of this total relationship.

Just as science cannot tell us what we should do and how to arrange our human affairs, sociology cannot and must not be elevated to the rôle of a moral guide or arbiter. Diagnosis, not cure, is its main task. But in comparison with the past, the character and scope of the diagnosis is widening and factors must be taken into consideration which only a few generations ago seemed to be irrelevant or were not known at all. This expansion of the observational field is a trend that is common to all branches of science. It is a direct challenge to the facile acceptance of and the satisfaction with half-truths. And it is also symptomatic of the growing recognition that knowledge alone, knowledge without insight and imagination, is a deceptive basis of serious scientific research and can lead only to a perpetuation of outworn analytical methods.

The greatest synthesis of all, the synthesis of the I-Thou and I-It relations between man and the external world, awaits consummation. Man alone must work out this synthesis, and sociology must provide the tools, the precision instruments, for the diagnosis of the condition of man as a social being. This diagnosis should be all-searching and conducted in a spirit of adventure, not shirking the responsibility of exploring hitherto unknown and seemingly unrelated fields. The more far-reaching and the more thorough this diagnosis is, the greater will be its value as an agent of social change. It will open our eyes to problems which can help us to work out the great synthesis between ourselves and our environment and the universe.

This synthesis cannot be brought about by a levelling down of the I-Thou and the I-It in the hope that they will then merge more easily

into an integrated whole. On the contrary, both should be levelled up and cleansed of the frustration and misinterpretation which have piled up for centuries erecting barriers between ourselves and the reality of life.

We cannot undo the influence of the world of things, of the world of It. We cannot exist without a detached and objective investigation of the natural phenomena around us. But this abstract detachment has now reached such a degree that it threatens to destroy the world of Thou, the world of individual and direct experience of life as a whole. As Martin Buber says:

"But in times of sickness it comes about that the world of It, no longer penetrated and fructified by the inflowing world of Thou as by living streams but separated and stagnant, a gigantic ghost of the fens, overpowers man. In coming to terms with a world of objects that no longer assume present being for him he succumbs to this world."

Our world is sick through and through. We are alone in this world, and nobody can help us to rebuild it. We must do it ourselves.

We believe in public institutions, but we fail to see that these institutions are emanations of the world of It. They are not promoters of public life and far less of personal life. They destroy significant relations and drag men into an inarticulate mass of impersonal human machines and organizations.

Direct and personal relationship to other men and to the surrounding world can be discovered only in the individual being. If he associates with his fellow men, this should be done by an act of individual decision, and not be imposed from above by an institution organized for reasons of political or even personal expediency. Within a State the rôle of which has been restricted to that of a functional agency public institutions will also be reduced to functional tasks.

One of the major misapprehensions of sociology is its pre-occupation with the study of institutionalized features of the social life. So far it has done nothing, and it will never do anything if it continues on this course, to bring out the inherent weakness of these "complicated market-places." It has never succeeded in laying bare the basic reactions of man to his environment as a whole. It has been content with secondary results of this interaction, instead of piercing through the crust of the world of objects and institutions to the essence of man's existence. It was more concerned with the use man made of the material resources which Nature has placed at his disposal and the organizational forms which he applied in using them than with understanding the important difference between using and

experiencing, or with attempting to explain why at this particular stage of our development the significance of institutions is receding—if they ever had any significance at all.

Without a general framework of reference sociology cannot contribute anything to a revolution of our social and physical environment. This general framework is provided by the unity of the worlds of Thou and It. Every research into social problems should be conducted with a conscious awareness of the ever-present influence of this unity.

Then the shallow talk about a freedom which we do not understand and to which we pay merely lip-service will become meaningless. Do we really know what we mean by freedom? Are we really content with a few politically dressed-up freedoms—if they do not happen to be curtailed in "the national interest"? We have no clear notion of what freedom is and whether we can be "free" at all. To most people it means a distorted individualism, a state of affairs where they can conduct their business in accordance with the rules of a jungle-economy, and where their personal life, or what they regard as their personal life, is free of any creative activity and thought. Our so-called freedom is an illusion. The whole structure of society is interspersed by professional organizations, and man is the slave of their all-pervading dictatorship. Work is the new religion, and religion a by-product which the respectable citizen uses from time to time as an ostentatious sign of his respectability or as a fleeting consolation when he is in distress.

Freedom in the West is thwarted by the machinery of the State, dominated by the vested interests of professional groups, and distorted by social and political conformity. Freedom in the East is sacrificed to the vested interests of the State dominating the economic and social life of its citizens. In either case human values are subordinated to material and political requirements.

Can we hope to fight successfully against these overwhelming odds?

ECLIPSE OF ECONOMIC MAN

"No science will give them bread so long as they remain free. In the end they will lay their freedom at our feet, and say to us, 'Make us your slaves, but feed us'".

"Man is tormented by no greater anxiety than to find someone quickly to whom he

can hand over that gift of freedom with which the ill-fated creature is born."

"Nothing is more seductive for man than his freedom of conscience, but nothing is a greater cause of suffering."

Must we accept as a final judgment these depressing, though all too human reflections which Dostoevsky puts into the mouth of the Grand Inquisitor? It is true that, if a choice has to be made between economic security and freedom, it is usually made in favour of security, while every fool believes that he is politically free if he is allowed to put every few years a slip of paper into the ballot box, to write Letters to the Editor, to be subjected to majority rule, to disseminate his confused generalities from the soap-box, and to criticize the Government of his country. Are these manifestations of freedom not rather modest? Is their character not "conditioned" by the combined efforts of propaganda and political expediency? Real freedom can exist only in an independent mind. It cannot exist if the mind is doped by pre-digested ideas and an imperfect knowledge of the actual situation. But this is exactly what is happening to us in the present conditions, although we are not fully aware of it, and soothe our consciences by such nice phrases as "First things first" or "The Government must not be embarrassed" or

"Life is a compromise." It is not astonishing that the anæmic vision of freedom is only too easily given up in favour of security, although the hopedfor security is mostly of a rather dubious nature. It is more like jumping from the frying-pan into the fire. We lose freedom without gaining security. We are like a pendulum swinging between the poles of uncertainty and imperfection.

Is this oscillation between the world of values to which freedom belongs and the world of things to which security belongs not perhaps another expression of the eternal choice before mankind, of the choice between essence and existence? It is of little importance, except to philosophers, which precedes which: essence existence or vice versa. Synthesis between these two primary powers has not yet been achieved. Will it ever become a living reality?

Economic bonds and economic security give a sense of active participation in a great cause, and make man believe that he is lifted above his narrow personal limitations. We may not like these "materialistic" imponderables as channels of uplift, but they do exist, and millions believe in them as indispensable prerequisites of their happiness. They surrender without hesitation their intellectual and moral sincerity and independence for the expected gains from security. What does this prove? It proves that the longing for elementary things—for food, shelter, and work—is stronger than the longing for elementary values. And it proves, too, that not only our ideas about freedom and security in general are confused, but that we seem to be unable to make a clear distinction between the fulfilment of individual and ideal aspirations and the satisfaction of functional needs. We make this decision, the surrender of freedom to security, on emotional grounds, and, as in so many other cases, we try to attach to it a rational explanation only afterwards. We believe that only through security can we afford the luxury of freedom, and that without security we cannot possibly have the willpower even to think of freedom, to say nothing of making it our primary goal. This holds good for individuals and nations alike. When we say we are fighting for our freedom, we mean in reality we are fighting for the security of the institutions to which we have become used, and that only after victory has been won can thought be given to-to what?—to that particular brand of freedom that is dangled before the nations in order to stimulate their will to victory and to unite them against the enemy. But this freedom remains a pious promise for the future. It is watered down to a few reforms or is completely forgotten because the newly won security must now be made "secure" against possible new dangers.

The phantom of economic security is bought at a very high price. It is mostly equated with economic and technical efficiency.

We have even been promised a managerial revolution, although the world is already dripping with "efficiency" and a misdirected energy. Whether we are in this revolution or still awaiting this blessed event is not quite clear. However, it seems more realistic to speak of an epidemic spreading rapidly over the world, of a disease with the strange name of Manageritis. It is very contagious and almost incurable.

Its symptoms are an exclusive preoccupation with statistics, tables, graphs, tests, and in general an increasing tendency to be subjected to hallucinations and a quickly deteriorating squinting which prevent the patients from seeing anything living and make them liable to distinguish only dead things. The causes of this disease develop on a hysterical basis and produce a dangerous monomania, called Numberitis. Many cases are known of patients who had completely lost their memory and were only able to mumble for days and weeks unintelligible combinations of numbers and to swallow statistics as the only nourishment. The patients suffered from moral arteriosclerosis and a rapid atrophy of their natural instincts. Those who are afflicted by this disease are not regarded as a public danger, because they are in general able to adhere to the usual standards of behaviour and succeed in convincing the majority of people that their work is in the general interest and that the diagnosis of the consultants is mischievous. It is difficult to prescribe the right treatment under these conditions and to convince people of the contagious character of this illness. Time will tell who has been right—the patients or the doctors.

It may be a representative example of this trend towards blind efficiency when we read in a report, published by Reuter, Associated Press, and British United Press, on the testimony of Admiral Sherman, Chief of the United States Naval Staff, before a Committee of the Senate, the following: "Admiral Sherman said the Chinese were susceptible to plagues and contagious disease and the stoppage of drug supplies would hit directly at the mobility of the Chinese armies." To condemn this statement as antihuman is old-fashioned. The Admiral merely suggested what every efficient manager would have done: total efficiency or none.

Yet I cannot help feeling that Goethe's forebodings were more justified than the light-hearted belief of his age in enlightenment and progress, an attitude which is still very much alive today: "Mankind may grow in intelligence and insight but it will not become better, happier and more energetic. I see the time approaching when God ceases to take

pleasure in it and must again smash everything to pieces for a renewed creation."

Economic man, the standard-bearer of this efficiency-for-efficiency'ssake insanity, is doomed to a slow though irresistible extinction. He carries the germ of his destruction in himself. His denial of the supremacy of human and social values and his belief in the fallacy of attaining freedom and social awareness through the prior achievement of economic security are self-destructive forces of the first order. Economic security, as we understand it today in a mass-society, demands the highest efficiency of production, and this efficiency can be guaranteed only if the means of production, the machines, are served by human automata. It is a vicious circle, inescapable and threatening, which cannot be broken as long as this economic mentality and all it stands for persists. But it cannot persist for any length of time because it is undermined from within. It is "running down," and the more it is running down and the more its very essence, its efficiency, is destroyed, the greater the economic anarchy will be. The elementary and human aspirations will intensify their struggle for survival, and the insight will grow that man does not live by bread alone. Economic man is the greatest absurdity which even our absurd age has produced. He is the typical representative of the Know-how spirit, of this arrogant superficiality which is so characteristic of our time. He is the expert par excellence, the prototype of fractional man and the gravedigger of his own work. He is uncreative in spite of great material achievements because he is a destroyer of the essence of humanity, of the longing for freedom and social unitedness, for freedom cannot exist except in a human community. It cannot exist in isolation. I am not free when I am alone, even if this were possible. Economic efficiency is the antithesis of social community. Freedom can be made a living reality only within a community, for freedom without restriction is not freedom, but arbitrariness. It has no intelligible field of action.

The real problem, therefore, is not to attempt to reconcile what is irreconcilable or to take goals each of which is desirable by itself, in this case security and freedom, as starting points of an unprejudiced investigation, but to get down to the grass-roots of our existence.

Certain personal aspirations and certain functional needs are to be satisfied. Is it advisable or possible to merge both these trends into one, or to keep them apart? What is the right course, and how far can the personal and the functional spheres of life be absorbed into each other?

Let us look first at the possibility of integration. The only factor of real importance in the functional life of man is work. The decisive factor in the

personal life is the establishment of personal and direct relations. The problem is therefore: Is a personal relationship between man and his work possible under conditions of mass-production for a mass-society? If it is possible, the main obstacle to a creative unity of the personal and functional life would disappear.

Even if the production of all "luxury" goods could be cut out, certain basic needs must be satisfied, and production must remain geared to an output corresponding to the size of populations. The numbers remain the same whether the existing structure of State and society is transformed into innumerable small communities or not. Consequently production for the masses is unavoidable. But is mass-production also unavoidable? The obvious solution is to split up large industrial units into the smallest units possible. That this is feasible has been repeatedly suggested by industrialists with a considerable practical experience. The decentralization of production into small units would go a long way towards creating a more personal relationship between workers, but it would not restore a personal relationship between the workers and their work, not because the machines stand between man and work as impersonal intermediaries, but because modern production methods make it impossible for a worker to handle his work from the beginning to the end. And this seems to be at least one of the essential prerequisites for establishing a direct relationship between producer and product. This last point refers of course to the experience of the past, before specialization had split up the working process into innumerable, individual and separated manipulations. As these old conditions can hardly be restored, the question arises what can be put in their place in order to remove from men the stigma of human machines.

Several remedies have been suggested and partly applied. There is first the nationalization of industry. If this is carried through to the full, every worker is theoretically his own employer, and he works for himself. In this case the personal stimulus might be found in the belief to work for the common weal without any profits being retained in the sieve of private ownership. The impersonal character of the working process, however, would not be affected.

Then there is the participation of workers in the management of the plants. This can of necessity be only the direct concern of a few who represent their fellow workers. Again it might mean a certain satisfaction for the workers, but it does not change the fundamental structure of the work.

All workers are shareholders of the factory in which they work, and

nobody else. This is merely a case of individual "nationalization" on a small scale.

The working hours are to be reduced very considerably. Let us assume for the sake of argument that machines would do almost the whole of the work unaided—though it is a fallacy to believe that a progressive mechanization reduces the number of jobs; on the contrary, increased mechanization creates new, though different jobs, because new machines have to be built, and very likely consumption would grow—and working hours could be drastically reduced and wages be increased, the relationship between work and worker would yet remain impersonal. The worker would gain more time for leisure, and the scales would be tipped in favour of his personal life, if he knew what to do with his leisure and how to turn it into recreation.

Finally, there is Aldous Huxley's idea of self-sufficing individuals equipped with small workshops where they can do much of the work needed for their existence themselves without too much reliance on the national and world markets. This would amount to an increasing decentralization of population and production. Aldous Huxley has given much thought to this problem in several novels, and in particular in Science, Liberty, and Peace. In this pamphlet he says:

"So long as the results of pure science are applied for the purpose of making our system of mass-producing and mass-distributing industry more expensively elaborate and more highly specialized, there can be nothing but ever greater centralization of power in ever fewer hands. And the corollary of this centralization of economic and political power is the progressive loss of the masses of their civil liberties, their personal independence and their opportunities for self-government. . . . But now let us suppose that those who make it their business to apply the results of pure science to economic ends should elect to do so, not primarily for the benefit of big business, big cities and big government, but with the conscious aim of providing individuals with the means of doing profitable and intrinsically significant work, of helping men and women to achieve independence from bosses, so that they may become their own employers, or members of a self-governing, co-operative group working for subsistence and a local market . . . this differently orientated technological progress would result, not as at present in the further concentration of power and the completer subordination of the many to the few, but in a progressive decentralization of population, of

accessibility of land, of ownership of the means of production, of political and economic power."

All these possibilities contain the germ of re-establishing a more personal relationship between man and his work by making it more purposeful and more directly significant to life as a whole. If all these remedies were to be applied simultaneously and fully, they might remove some of the causes of the maladjustment between the personal and the functional life, but they could not change fundamentally the abstract character of the working process itself, which is inherent in the interposition of mass-producing machines between the workers and the finished products, not even to a really considerable degree, if Aldous Huxley's ideas were put into practice in all those cases which permit their application, for it has been estimated that mass production and mass distribution cannot be dispensed with in about one-third of the total production of goods.

Have we perhaps put the wrong question, and therefore got the wrong answer? Is it necessary to restore a personal relationship between man and work? Let us anticipate the conclusion of the argument. A total and personal relationship seems to be impossible, at least in the same manner which we know from the past. We must work out a solution on another level, and not only put up grudgingly with the abstract character of the working process, but make it, together with all the other demands of the functional life, the creative counterpart of the personal life. We shall return to this problem at the end of this chapter.

That our present economic system is an anomaly and cannot survive is almost commonly accepted except by the immature boy-gangsters of big business, by the go-getters, and the hopeless traditionalists. It may well be that all the suggestions enumerated above will be made part of a general readjustment. It seems that we are already moving in this direction. The overriding fact remains that the world's population is increasing and that mass-production for the masses must also be increased correspondingly. But what can be changed, and should be changed fundamentally, is the social position of the workers in relation to ownership, distribution, and size of industry.

The retrospective utopia of reverting to a sort of pre-machine primitivity is just as nonsensical as the prospective utopia of giving everyone his own little machines. Both these wish-dreams are in reality nothing else than a confused attempt to re-introduce in a more modern disguise the principle of the old home industries. Like all wish-dreams, these nostalgic proposals are moreover the result of an imperfect reading of the past. History never

repeats itself except in the minds of those who twist it to suit their own misapprehension of historical facts by isolating a few unrelated details from their organic context. These people overlook the all-important development that a direct and personal relationship between man and work could exist only because other factors worked in the same direction. Let us take the European Middle Ages as an example. Guilds, religious associations, and the family enveloped man in an inextricable net of interdependent relations. His world was limited to his own town, and in his universe the earth, his own living place, was still the centre of the celestial system. Contact between these small units of living was direct and personal. The demand for goods corresponded to the productive capacity of the craftsmen and artisans, and the guild system guaranteed a fair standard of living. All these factors together contributed towards the immediateness of life, and all were intimately interwoven with each other. These conditions have changed not only in degree, but also in kind. They have changed through the disappearance of formerly integrating forces without being replaced by a new complex of interrelationships. Man was the centre in which all these relationships met.

The problem which we have to face is: What sort of new relationships are likely to emerge? The answer seems to be: A synthesis of the I-Thou and the I-It relationship, cleansed of the ballast of outmoded and therefore fallacious notions, will create conditions in which the personal and the functional life will be kept in a dynamic equilibrium. In the course of this development many cherished ideas will give way to new aspirations and new needs. Not only will the concentration of power in the hands of a few disappear, but every concentration of any type will be replaced by decentralization, by the physical decentralization of the cities and by the cultural decentralization of fossilized institutions. The final result will be hosts of small community units as centres of living and working; a very farreaching splitting-up of industrial production in publicly owned or cooperative groups; and in general a social and physical environment with which man has a direct and intimate relationship. The end of cities means the rise of communities, and the end of large industrial plants run by a few means the rise of a socially conditioned economic system.

The rumblings of a revolt against the oppressing legacy of the past can be heard all over the world. That this revolt is gaining momentum from generation to generation is clear to everybody who has the will to understand the deeper reasons for the changes going on all around us. The readiness for a far-reaching transformation is still inarticulate at the present, but it is there, and it will grow in clarity and intensity. It is a readiness which will increase the more mankind is convinced that these changes will lead to the emergence of social man and the eclipse of economic man. One of the most humiliating notions is the idea of man as a working animal. Work is a means, not an end; although it is an essential part of our life, it must not dominate our life.

This answers the second question: Can our personal lives and our functional lives be kept apart? They cannot—they are inextricably intermixed. What can and should be done is to evolve a dynamic equilibrium between the two and to break once and for all the primacy of the working life over the personal life, the fateful legacy of the last century. The overpowering impact of the fulfilment of functional needs has made all of us fractional beings, experts for something. It has left behind a desert of missed opportunities.

But let there be no mistake: social and full man will not be born if we continue to believe in institutional reforms. Common ownership and participation in management and all similar remedies are only changes on the surface. They are meaningless if they are not guided by the will to a community spirit and not accompanied by a revolution of environment in all its infinite variety.

The magnitude of the danger with which the unquestioning acceptance of science and technology has brought mankind face to face cannot be overestimated. Science as such is neutral. Everything depends on why and how it is applied to practical problems. We need not think only of the scientifically directed mass-destruction in wars which is, in spite of its revolting inhumanity, but a passing event, but above all of what technology, as the child of science, has done to man during the last centuries. It has fettered man in spirit and body to the world of machines. It has uprooted him and deprived him of the essence of his human nature. It is gradually transforming the earth into a machine-made landscape. And above all it is the strongest factor in narrowing the horizon of man to the immediate present, almost without any interest in the future. Man, the working animal, is swallowed up by his work, and his energies find their outlet in the shallow allurement of sensational and fractional amusements.

This is not to be a nostalgic lamentation about the inescapable dangers of technology. It is a simple statement of facts which can be checked by everybody without bias. Nor is it to be taken as a timid resignation to the inevitable supremacy of technology. It is rather an indictment directed against ourselves and a warning—so often uttered by many of the best

spirits—that mankind is doomed if it does not muster the courage to subordinate what is euphemistically called the progress of science to the most elementary needs of man. This so-called progress can be directed into creative channels only if we view, in all its phases, its effect on society and its individual members. Just as economic man is dying through his own inherent weakness, technology as the arbiter of our lives is dethroned by overstepping the limits within which it can be a productive force. We are in a tragic position: we sense and we know that we are victims of a seemingly irrevocable development, but we believe that we cannot redirect it towards more human goals. And yet behind the mountains of frustration which have piled up during the last centuries there lie immense new possibilities. We have passed the ridge of these mountains. The next generations will be in a better position than our own. They will have to work out a pattern of living in accordance with the totally different conditions and possibilities which the growing insight into the true character of science and its use in the creative service of humanity open to them.

We cannot say that sociology is equal to the occasion. It is still preoccupied with the analytical investigation of dying institutions and the evaluation of lifeless statistics. Most of the social surveys are restricted to a so-called objective study of so-called objective facts. But these "facts" are mostly wrong, because they are unrelated to the social configuration as a whole. Their interpretation is therefore useless. I remember the report of a great enthusiast for social surveys who proudly proclaimed that it was clear beyond any doubt that the people who had been the victims of this inquiry loved their slum and did not want to leave it. I admit it was an enthusiast of a particular brand who was an expert in stepping in where angels fear to tread. But what did this statement amount to in reality? The inhabitants loved their slum because they had got used to it. Their senses were blunted and their humanity distorted to such a degree that they had lost even the most elementary aspirations. But, said the enthusiast, their social life, their practice of mutual aid, were much better developed than those of people living in the better quarters. This may be so; but can a comparison with something that is obviously non-existent be of any value? My main objection is: the imputation of motives which work on a wrong basis and are demonstrably misdirected cannot possibly be taken seriously. These people liked their slum not merely because they had got used to it, but above all because they did not know the existing possibilities which were open to them in totally different conditions. This they share with almost all of us. However, this is no reason why even a slum may be

desirable. In any case, the real task of the social survey should have been the investigation of the significance of this pitiful attitude in human terms, its origin and its consequences, not merely for the physical but also for the mental health of the inhabitants.

It may be objected that the inclusion of these wider aspects lies outside the proper field of study of sociology and that the investigation and interpretation of imponderables should be left to philosophy and psychology. Sociology, this argument runs, can deal only with facts, with what can be seen and observed; its task is not to unearth the causes, but to report the effects, not the motives of man's behaviour, but his reactions; and in any case the solution seems to be: team work including, if you like, a psychologist and even a philosopher. This does not sound too bad—on the face of it. But will it produce comprehensive and really valuable results? I have grave doubts that even a good team will deliver the goods which we need most urgently-namely, the penetrating insight into the whole plexus of interrelationships and overlapping or counteracting motives—if the investigation is not conducted within a wide though precise framework of reference. This is mostly not the case, and there is no great likelihood that it will happen, as long as sociology relies more on analytical than on synoptic methods.

Let us explain these shortcomings by another example. I have before me a pamphlet on Social and Religious Factors Affecting Fertility which is typical of many demographic investigations. It is, in the usual sense, a reliable and good study of a particular problem of sociology which cuts deeply into the sphere of the imponderables. The tools of the investigation are statistics neatly arranged as tables or graphs. The conclusions are no conclusions at all, because they are based exclusively on the piecing together of a few statistics which are, moreover, of a doubtful value. The real causes of this problem have not been taken into account. The personal motives, the influence of environmental conditions, the relation between group and individual, the impact of industrialization, the use of leisure, and the intellectual and emotional set-up have been excluded from the investigation. What is the use of such a social survey? None-none whatsoever. Or we may refer to the other extreme, to a sociological study "on a global scale" without the use of statistics, to The Road to Survival by W. Vogt. I cannot do better than to quote from a review of this book which appeared in the June 1949 issue of The Geographical Journal, the official organ of the Royal Geographical Society. The review was written by Professor E. G. R. Taylor.

"Mr. Vogt's book has made a great stir, both here and in America, and it was his intention that it should. Perhaps that is the explanation of its exaggerations and inconsistencies, its apparent complete disregard of human values. For he sees the Americans as a group of shipwrecked men who have climbed on to a well-provisioned raft and whose first business should be to fend off the clutching wretches still in the water. He deems a high death rate the greatest of blessings ('All the more for me!'); doctors are public enemies; the tsetse-fly ranks as one of Tanganyika's prime assets. He hopes that the British withdrawal from India will reintroduce Malthusian checks on populationfamine, disease, civil war. The Japanese may expect an honoured place in the comity of nations only if they reduce their numbers to the approximate figure of Scandinavia; that is to say from about seventy millions to ten. Yet he does not advocate mass slaughter, so that it is difficult to see quite how the Japanese are to manage it. His one positive suggestion is that American aid to reconstruction should be made contingent upon an active policy of birth-control on the part of the recipients, whom he views as slyly dipping their hands into his compatriot's dinner-pail."

All this is "harmful nonsense" and, as the reviewer says, it reveals a "complete disregard of human values." She should have added that it is a complete misreading of the situation. And it reveals also something else: the narrowness of fractional fanatics both using a seemingly objective approach to problems of vital importance either to "prove" nothing or to "prove" the insignificance of human beings and to show the road to survival by killing them by the million. Let us hope that this sort of "sociology" will be the first victim on the road to survival.

So far little has been said about the scope and character of sociological studies in relation to the environment. Environment is everything, from our suits we wear to the universe—in other words, the whole of the external world. The natural and the man-made environment flow into each other, and no clear demarcation line can be drawn between the two. In the last instance all works of man are merely a re-casting of the natural resources. To extend the range of sociology to such a variety of factors may seem to be a frightening demand and in practice impossible.

However, the fact remains that we are influenced by an unlimited variety of environmental conditions and that nothing can be excluded, because the

conditions which constitute our more immediate environment are themselves always part of the greater whole.

The expression "ecology" was originally introduced as a term for the relations of animals to their environment, or, as it is also called in this connection, to their habitat. It deals with the "chain reactions" of influences which are caused by the nature and workings of the environmental factors and the way in which these factors affect a particular species and vice versa; with number and rate of growth of animals; and with the organization of animal communities. These are broadly the same problems with which human civilizations are faced. In both cases there is the same need for a systematization of what appears a chaotic manifoldness of cross-currents. This need does exist, although the chaos exists only in our own mind, and certainly not in Nature. It is therefore not astonishing that we look at the organization of the animal world through man-made spectacles and tend to develop a system which takes its guiding principles from human behaviour and human society. In either case the causa causans is beyond our reach, and we understand possibly just as little of ourselves as of the animal world. However, this imperfection does not invalidate the principles of ecology nor their application to sociology. Hence the term "Social Ecology" which signifies more than sociology or ecology as separate disciplines. It stresses the indivisibility of man's interaction with his environment and the need for extending the hitherto rather narrow field of sociological studies to all those factors which are connected in one way or the other with the habitat of man.

Among the many valuable ideas of animal ecology there are three which may be particularly helpful for indicating some aspects of the wide range of Social Ecology. These suggestions are: gradients of environment; ecological succession; and communities at different times.¹ The selection of these problems is rather arbitrary and could easily be replaced or augmented by many others. They give, however, a fairly good idea of the dynamics of Social Ecology. Gradients of environment means the influences of different temperatures and of different intensity of light. This influence is felt either directly or indirectly. It is felt directly in the changing conditions which accompany the whole range of climate between the poles and the equator. It is felt indirectly, say, within forests and houses. The concomitant is a lively competition for the best living conditions for animals and human beings and the differentiation of what has been termed "life zones," applicable not only to the main division into tropical, sub-tropical zones, etc.,

¹ Encyclopædia Britannica, article on "Ecology." Fourteenth Edition.

but also to extension in height along the sides of mountains or to the different climatic conditions in different parts of big cities.

Ecological succession means the organic transformation of environment and its effect on animal and human communities. These changes are mostly slow, if the transformation takes place through natural causes alone; they are more concentrated in time and space when they are the result of man's interference. The growth and decay of vegetation are regarded by ecologists as perhaps the most important ecological succession and the strongest influence on animal communities. This is paralleled in the human sphere by such effects as the destruction of the soil through erosion; by excessive deforestation; by the neglect of the natural and man-made water resources in deserts; and in general by the transformation of the natural and forested landscape into an agricultural or urban landscape. All these changes have a profound effect on human communities; and it is one of the major failures of sociological studies that these changes have not been investigated in human and dynamic terms, but almost exclusively as accomplished and static facts, such as the existing distribution of agriculture and industry or of villages and towns. These studies have been primarily the field of historical geography, social history, and related disciplines, but hardly ever of sociology. The social repercussions of these changes have not been investigated in their significance as transitory stages of the everchanging structure of societies. This is a mistake similar to that which is usually made in the assessment of revolutions: a revolution is always the end of an epoch and the result of preceding maladjustments; it is not the beginning of a new phase which sets in only after the revolution has spent itself. It is often objected that sociology has to deal with the investigation and interpretation of existing conditions and not with their historical development. This argument is hardly valid, if for no other reason than because existing conditions can be understood only in their relation to the past as well as to the future. Moreover, the time-scale of those who adhere to this idea is wrong: they think in years instead of in generations. A generation as time unit introduces a dynamic factor. It bridges a time span during which considerable changes in the physical and social structure take place; and it brings out in strong relief the need for a simultaneous, retrospective and prospective, appraisal of the situation.

Communities at different times means the periodically changing character of communities—for instance: in a fresh-water stream different species are active by day and by night; or the weather and the seasons exert a similar influence. We forget only too easily that in human communities

quite a considerable portion of their members work at night, and are thus excluded more or less from an active participation in community life; or that rural communities, say, in Italy, Switzerland, and Hungary, change their composition during the summer because the male members stay in temporary shelters in the fields, sometimes miles away from their homes. These and similar changes occur all over the world in different forms and for different reasons, introducing a cycle of social adjustments and readjustments to the communities which have an important bearing on many habits of the individual members and of the community as a whole. Here again we can learn a lot from animal ecology.

Other instructive factors are the results of the observation of the existence and behaviour of animals in relation to the inanimate and animate environment and the effects on distribution and number of a species. What are the "ordinary" and the "limiting" factors which affect animal communities? Three categories for the investigations of these problems have been suggested: the physical and chemical, plants, and other animals. For Social Ecology the interaction between man and the inanimate world, on the one hand, and between the animate world of animals and other human beings, on the other, raises the problem of the I-Thou and the I-It relationship, to which we have referred in the previous chapter; the study of caste systems, kinship systems, division of labour, relations between sexes, between different groups and other related problems.

The article in the Encyclopædia Britannica stresses the extraordinary importance of what Darwin has called "the almost universal law of consume or be consumed." It points out that—

"animal communities are not simply unorganized assemblages of animals which happen to live in the same habitat—they are intimately connected together in a most complex manner, and the tie that binds them together is the tie of food. . . . In order to understand the way in which any animal is affected in its numbers or distribution by other animals living with it, it is necessary to study the whole animal community living in one habitat, and that it is useless to treat the animal as if it were completely isolated and acting as a separate unit. . . The question of numbers has an intimate connection with migration and with the spread of the species, since at the limits of their range animals are always fluctuating in numbers in a very marked way, and problems of distribution often turn out to be really problems in numbers."

Here we have the "economic motive," which also holds human society

of their members, their class and professional structure, and their general distribution. Economic man and economic animal seem to have more in common than our pride allows us to admit. And yet in both cases our understanding of what lies behind the "economic motive," of the causa causans which determines character and direction of this elementary impulse, may still be rather imperfect.

The main lesson which we can learn from animal ecology is the need for studying human communities as a whole and in their total relationship to their physical and social environment. Isolated investigations are useless, and the range of Social Ecology cannot be restricted to factors which are immediately instrumental and apparent, but should be extended to the indirect, and therefore more abstract, causes affecting man and environment alike.

These few examples taken from the stock-in-trade of animal ecology give an indication of the widening scope of Social Ecology. Sociology, in contrast to Social Ecology, was, and still is, more interested in the investigation of institutions, and primarily of those trends which were obviously related to institutionalized habits and their immediate effects. It was more concerned, as it were, with the microcosm than with the macrocosm, and not at all with the intimate interdependence between the two. Social Ecology can provide us with the means through which we can obtain not only a synoptic view but also a stereoscopic view of man in his relationship to the environment. A stereoscopic view gives a three-dimensional impression, an impression in depth, that is to say, of man against the background of the environment and not only of his foreground activities which cannot convey the relative significance of each single activity in relation to the whole. It brings out the dissimilarity of viewpoints, and therefore introduces a far more precise instrument of observation. To make this simile clearer still: the "two-dimensional" view is the tool of the nineteenth century, and intimately connected with "behaviourism"; it neglects the scrutiny of the motives which shape human behaviour, and it makes us believe that this over-simplification is sufficient as a substitute for a searching psychological diagnosis of man's impulses and reactions. It is symptomatic that an artist of the stature of Maupassant, one of the greatest writers of the last century, could say: "For me psychology in a novel or a story consists in this: to show the inner man by his life." His approach is based on what has been called the two-dimensional view, on the explanation of the whole through innumerable details focused on the outward behaviour

of man. The synoptic view is, in this connection, but the complementary exploration of the interaction of man and environment. It dispenses almost automatically with the "static" approach and introduces instead the "process view." In "Life from a New Angle," published in This Changing World, edited by J. R. M. Brumwell, C. H. Waddington makes the following comments:

"Most commonsense methods of picturing the world nowadays are based on the science of the seventeenth century. We 'instinctively' think of solid lumps of stuff, and if they happen to be pushing one another around in some process, that may be interesting but is not essential. In twenty or fifty years' time, or however long it takes for today's science to become 'commonsense', we shall 'instinctively' think of something going on. . . . This type of thinking, in terms of processes, is derived from a consideration of the most fundamental and basic properties of living things. We shall therefore have to use it for the ordinary everyday affairs of life as well as for recondite and faraway matters. We shall, for instance, realize that our friends are made up of a number of separate and perhaps conflicting traits. . . . Even when we are dealing with groups of people instead of single individuals, we shall probably find that the 'process' view is the most enlightening. We may give up trying to analyse our society into institutions, like the Church, the City, Industry, Agriculture, etc., or even into bodies of men, like the Industrialists, the Financiers, the Working Class, and so on. We are likely to think of it in terms of processes: of manufacturing, of selling, of influencing public opinion, etc.; or of the Class War; or of all working together for the common good."

Thinking in processes is the equivalent of seeing in relations, but in relations of a comprehensive significance. Therefore it is insufficient to see the relations between things and institutions of the external world; all these relations should be apprehended in their interaction with the "inner man." Only in this way can the workings of the microcosm and the macrocosm be understood in their indivisible unity. Only in this way can they be related to life as a whole, and only in this way can the true nature of their structure and influence be observed with any hope of precision and constructive application for our lives. The social microscope and the social telescope are of equal importance for the synthesis of the I-Thou and the I-It relationship. The time has gone when only the external behaviour of

man could serve as a useful instrument of social understanding. "Outer man" is limited just as every institution or organization is limited. We can see what he does and how he does it, or what is the purpose of an institution and how this purpose is achieved, but the motives remain in the dark, and therefore many points of contact evade our valuation. Let us remember once more Tolstoy's words about the need for "taking an infinitesimally small unit for observation"—namely "the individual tendencies of men and attaining to the art of integrating them"—if we want to arrive at the laws which determine human reactions and aspirations. It is the "inner man" that counts and who is unlimited. It is this insight which Hamlet expresses when he says: "I could be bounded in a nutshell and count myself a king of infinite space."

Two examples may explain why the approach which relies mainly on a detailed and unrelated research is unsatisfactory. We have ample material available on population trends, say, in India, and we know that the increase of population in certain areas of the sub-continent outstrips the food supply. The remedies suggested are, on the one hand, the introduction of birth control, and on the other, the reclamation of more land for cultivation. Both these means are certainly useful, but they do not solve the problem at its root. Why does the population increase and how is it possible to introduce birth control? Is it not more rewarding to try to understand the elementary impulses of the Indian peasant first, and then to suggest means to alleviate his plight? The investigation might proceed on the following lines. Although detailed statistics of the net fertility rate in the rural areas of the more important countries are lacking, it is a fair guess to assume that it is higher than in urban areas, and that it is definitely higher in countries with a predominantly peasant population in comparison with those with a more sophisticated and industrialized structure. High birth rates seem to be characteristic of civilizations where man tends to regard himself as an integral part of the multitude of phenomena of life and feels that his own existence is reflected in animals and plants, and even in inanimate objects. To such a mind the continuity of the family is of paramount importance. Man is less inclined to speculate upon economic difficulties which more children bring about. He follows his emotional urges with less restraint than his fellow men with a more abstract attitude to life and environment. Children are for him part of the natural order of things. They are the living proof that his own existence is but one fleeting stage in the long line of generations. For him it means more to live on through his children than through his works. This attitude does not exclude his

business-like appreciation of children as economic assets, especially in all cases where farming is a self-sufficing activity producing virtually only for the own family. In these conditions more hands may easily mean more and better food, and outweigh the disadvantage of feeding more people. Apart from these considerations higher birth rates seem to be more common when the standard of living is low. They decline with the rise of the standard of living, and as a result the older age groups tend to increase. The relationship between birth rate and standard of living is merely another aspect of the interplay of abstract thinking and a decreasing birth rate. In general we may say that children are less important as individual beings than as a link in the chain of generations, or as the personification of a life where every event is of an emphatic directness and where abstract speculations have not destroyed the desire for simplification and an unproblematic existence. All these factors play an important rôle in civilizations which are predominantly rural, and in general also, though to a lesser degree, in all rural communities.

On the other hand, in urban and industrialized societies the birth rates tend to fall. The general standard of living is usually higher than among peasant populations. It may be objected that the birth rate increased in the wake of the Industrial Revolution. This is of course true, but it is irrelevant for countries with a vast reservoir of labour on the land. The labour supply from the countryside was insufficient for the needs of the Industrial Revolution. Unlimited opportunities seemed to open before the masses. Why should they not take part in the general drive, in the adventure of expansion? Children were, as for the self-sufficing peasants, economic assets. They brought money in. They made the parents a sort of petty entrepreneur. What happened afterwards was of little concern. Children were objects of exploitation, of laisser-faire irresponsibility. These conditions are utterly dissimilar from those in agricultural countries today, such as China, India, and Indonesia. There is an almost inexhaustible labour reserve available in the peasant population. A rationalization of agriculture cannot be carried through as long as man is his own tool—that is to say, as long as primitive methods must be maintained in order to employ as many people as possible in agriculture. Industrialization and mechanization of agriculture go hand in hand. Industry will absorb a considerable number of peasants, but only gradually and slowly. It may help to develop a balanced decentralization of population if the new industries are not concentrated in the cities, but spread over the country. If this is carried through systematically and with foresight it will certainly lead to a higher

standard of living. But it will lead to disaster if it follows the old lines of patching up here and there only the most backward conditions.

A higher standard of living, even though it may be just the first step towards a really satisfactory existence, and especially in another than a purely rural environment, marks a turning point in life. It is not so much the improvement of living conditions as such, but the cutting loose from the natural environment, from being embedded in the immediateness of the natural order of things, that create an attitude to life at once more abstract and more problematic. The germ of individuality is born, and with it a different value upon children. As individual beings they gain in importance but lose as economic assets. On the contrary, they become an economic liability. For about the first sourteen years of their life they are dependent on the earnings of the parents. And the parents themselves want to have a share in the good things of life. However modest their ambitions may be, their fulfilment costs money, reducing the amount which can be spent on the children. The birth of a child is less the result of sexual spontaneity than a calculated decision. Thinking precedes acting in almost all activities, though it may be a rather confused sort of reasoning.

The dark prophecies that population increase will outrun food production are based on the present state of affairs, on the present proportion of urban and rural populations, and on the present structure and character of environment. Apart from the fact that these conclusions fail to take into account the possibility of new advances in science which are still unknown today, they make the cardinal mistake of assuming that birth rates will continue to rise because they tacitly presume that the standard of living will also continue at the present level in the at present overcrowded agricultural countries of the East and in rural areas of other parts of the world.

Although the foregoing remarks do not pretend to be more than general and rather incomplete suggestions, they show the intricate complexity of relations which should be the proper field of study of sociological investigations, and they also show the indissoluble unity of the synoptic and the spectroscopic view or, in other words, the interdependence of the "inner man" and the variety of external factors.

The second example—the rise of the big modern cities in the western world—is mostly explained in purely economic and historical terms, with relatively little emphasis on the social and above all human causes—not to be mistaken for the social and human implications. This difference is important because the two—the causes and the implications—get only too often mixed up in sociological, as in many other, studies. The usual

argument runs as follows: steam-power produces concentration of work, and therefore large congregations of people; the old feudal structure was disappearing and the impoverishment of the peasants increasing. Consequently the migration to the towns and cities grew, promoted by the worsening conditions in the countryside and, on the other hand, by the attraction of the conditions in urban areas. The towns overflowed into the countryside, and under the pressure of this development there was no time and no inclination to control their expansion. These reasons belong to the sphere of the What and the How; they do not explain the process in human terms—that is to say, in terms of individual motivation and the fulfilment of basic urges. It may be suggested that we might be nearer a deeper understanding of at least some of the real causes by attempting to relate this revolution of environment to the revolution in our ways of thinking and feeling. What had actually happened was the rapid disintegration of a conception of the universe which was limited and in which man, though removed, like the earth, from the central position through the Copernican revolution, could still preserve something of his previous unquestioning belief in the security of a universal order that was relatively simple and could be experienced directly. Not only the external scale was widening but, above all, the mind of man, having lost its traditional bearings, was ready to accept the most far-reaching changes without any clear idea about their nature and direction. This in itself is nothing unusual. What makes this development one of the most decisive turning points in the history of mankind is the emergence of a new force on seemingly equal terms with the old ones: the cherished directness of life; the feeling of being embedded in Nature which dominated the existence of the peasants and the close relationship between worker and work; the small scale within which the life of the townsmen and the countrymen proceeded; and the quieting knowledge that events in far-off countries were not their concern—all these ideas were disappearing. Man began to lose his confidence and to feel his loneliness in this world. The old limitations gone, the old ideas disrupting before his inner mind, he was frightened because the new values which could guide him were still hidden behind the veil woven of the fallacious belief in progress and in the Promethean power of technology. In this situation it was only natural that all brakes on the physical expansion of the towns were removed, and that the new scale of infinity was accepted without understanding that this newly gained infinity demanded a higher and also a basically different order of life than under the old conditions. How could men of the Industrial Revolution be expected to grasp the true significance of a

development of which they believed themselves to be the masters? How could they possibly cope creatively with the growing indirectness of life so much in contrast with millennia-old traditions? They clung desperately to their material achievements and to economic success. They began to plunder the riches of the earth; they extended their power over unwilling countries, stealing the land from the inhabitants; and they swept away all limitations —as they understood them. The towns and cities took part in this tempestuous development because the will to break limitations was irresistible, and the readiness to accept a new scale and a new indirectness of existence found ample nourishment in the all too human pride in easy success and progress. At the very root of this misdirected outburst of energies without vision lay the violent clash of two worlds: of the world of the I-Thou and the new world of the I-It relations. This was something which had never happened before. In the past the development, in spite of its sometimes turbulent interruptions, was relatively narrow in scope and character. For millennia it proceeded within the sphere of the I-Thou relations. Its stages differed in degree but not in kind till the world of the I-It disrupted the traditional relation between men and between men and things and made demands on mankind which it will take many more generations to fulfil.

These and similar considerations should be made the basis of sociological studies in the unsystematic growth of our cities and towns.

These ideas are nothing new. They are spreading but, alas, without any real influence on those responsible for the promotion and conduct of sociological investigations. On the contrary, they are mostly dismissed as unrealistic. And even far less do they find acceptance among those who regard themselves as our rulers. However, sometimes a lonely voice can be heard which tries to relate the practical problems of everyday life to these wider aspects. Although the approach is of necessity somewhat different, it may be pertinent to quote in this connection from a courageous and moving Report prepared for the American Friends Service Committee and published under the title Steps to Peace—A Quaker View of U.S. Foreign Policy, the following paragraphs:

[&]quot;There is no part of the world in which the people do not face the necessity of large-scale and profound changes in their use of resources, if they are to maintain or improve their plane of living. There is a widespread tendency for man to make wanton use of resources, sacrificing future prosperity for immediate gain. . . . Each country

and each region of a country requires a separate combination of physical, technical and social measure in order to bring about basic improvement in its plane of living. Almost everywhere on the face of the earth development programmes will involve changes that stretch far beyond the simple matter of introducing modern technology to less advanced cultures. In the broadest sense, any sound programme of development is a part of the social revolution which is proceeding on a world scale. This is a revolution in which large masses of the people struggle for equalization of political power, and in which others seek earnestly to increase economic opportunity. In many densely populated regions the immediate objective is to provide some security against recurring catastrophes of famine and pestilence, but everywhere the long-term objective is a basic change in the whole society as it affects both cultural and economic opportunities. In areas as diverse as the Niger River of West Africa, or the Yazoo River of Mississippi, or the Indus River of India, the perfection of programmes to reduce the destructive erosion of soil and to improve the agricultural productivity of the remaining land depend only in part upon the application of modern technology. Basically, they require changes in the system of land ownership, or in programmes of local education, or in the whole structure of government by which economic and political power are distributed at the local level. Technology is insignificant unless supported by social change. . . . On every hand and in many countries, one sees youth anxious to throw itself into something creative. Instead, confused in mind, and with lagging footsteps, it is being conscripted for training in artless destruction. But there is every evidence that given an opportunity, the youth of today would rise with the same dedication and willingness to sacrifice that has always marked its reaction to a bold and daring challenge. We believe that there would be a new burst of confidence if youth could be given an opportunity to build this world of understanding. We do not wish to be among those responsible for turning the energy of youth into the forced labour of self-defence; we seek rather to release its spirit of adventure, for purposeful living at home and abroad toward the achievement of a world of fellowship and understanding."

These words are the expression of the unshakable belief of the authors in the supremacy of human values and the possibility of a peaceful revolution by a wise and responsible transformation of environment in accordance with far-reaching social changes on a global scale. This adventure is doomed to

failure, if we persist in the use of old methods and superficial reforms. Social Ecology can deliver the right tools which neither sociology by itself nor ecology by itself can provide.

It has been suggested that our situation is unique because in the past the abstract world of It was subdued by the immediateness of an existence which embraced man and Nature in one great fraternity. What has changed since Harappa and Mohenjo Daru up to the beginning of the Scientific Revolution in the seventeenth century? Looking back over the five millennia which separate us from these early cities, tremendous material and ideal changes seem to have taken place. From our point of view the material conditions have improved and the cultural aspirations have become more sophisticated. But is this the right yardstick? Are men now happier than five thousand years ago? In what respect has their relationship to other men changed and, if it has changed, is this a difference of degree or of kind? Has their life been richer or have their needs and aspirations failed to find an adequate outlet? The right answers to these and many more questions depend on our ability to put ourselves into their position, as far as this is possible, and at least to try to dispense with our own standards of values. If we want to arrive at a true understanding of this development, we must not be led astray by the kaleidoscopic changes on the surface, by the changing forms of material objects and material conditions. We must let the human factor be supreme and interpret the facts of which we have knowledge in their significance for those who themselves created them.

Within the scope of this treatise it is of course impossible to go into a detailed description of the historical development, nor is there any need for it. The following examples are sufficient to show the continuity of the I-Thou relation from the dawn of known history to the beginning of its break-up in the seventeenth century.

During the first three thousand years man remains deeply embedded in his natural environment. Nature and man, human and cosmic events, are merged into one, and man's experience is immediate and personal. His relationship to the phenomena of the world rests on a concrete, not on an abstract, appreciation, and he is fully aware of his dependence upon the forces of Nature. The symbolic significance of events and phenomena is equated with actual reality. This attitude produces a concept of causality and of space and time which establishes between man and the phenomenal world an intimate and direct reciprocal dependence. The external world is a great Thou to early man. He does not search for impersonal laws behind the goings-on of the universe. Consequently his approach is not analytical.

And as he does not distinguish between an event and its accompanying conditions, he tends to interpret events in different forms; he does not attach a meaning to them which is unique and valid in any case. Changes are not the result of cause and effect, but are understood as manifestations of different and individual powers. Space and time are experienced directly in connection with concrete orientations and with a concrete sequence of transformation.

These general characteristics of early man's relation to his environment hold good for the civilizations of Egypt, Babylonia, India, China, and other parts of the world. They are still valid today for large areas of Africa, of the South Seas, and for parts of South America. Modifications do exist, but their range is limited by the all-embracing entanglement of society in Nature and the subordination of the individual to society.

Let us take architecture as the interpreter of this spirit in practice. The buildings of Egypt, Babylonia, and India are sculptures. They are "spaceless." Space and space-relations as formative powers of architecture cannot originate in this world of concrete experience. It is matter as a solid substance which dominates the architecture of these countries, and in its majestic upsurge and overpowering monumentality reminds man of his own nothingness and his dependence on the cosmic powers.

The world of primitive man which is still a living reality today is deeply embedded in magic and animism. It is a world which has no development as we understand it. Change means a break in the established and reciprocal relationship between man and environment, and would destroy the unity between man and the natural phenomena. Every one of the countless links which make up this unity has a specific significance, a specific intensity, and a specific form. Two spheres pervade each other: the macrocosm and the microcosm. The effort of primitive man is directed towards a fusion of the two through magical contacts which makes the universal and the social space coalesce. He lives as a part of Nature, and his buildings do not reflect an abstract concept of space. They have the substantiality of organic bodies. There is no scepticism to translate the sensations which the overwhelming abundance of the external world arouses into speculative thinking. Nature is experienced as a multitude of concrete orientations, and it is this concrete, body-like property which is the essential characteristic of all his works, of his sculptures and buildings. His equivalent of an abstract concept of space is rather a cave-feeling which shapes his buildings and calms his fear of the unknown. The bee-hive hut is the perfect symbol of this attitude.

The worship of the god Tangaroa, who is associated with the building of houses and canoes, is perhaps the most widespread cult of Polynesia. According to a legend, the skeleton of the god, after his life on earth had come to an end, was placed upon the ground with the backbone upwards and the ribs resting on the earth. His skeleton was, according to this legend, the home of all the gods, and from this time onwards the temples were built as open sheds with thatched roofs supported on posts resembling the cage-like model of Tangaroa's remains. In this legend we have the perfect explanation of the concept which determines the functional form and spatial significance of Polynesian houses. The unity of religious belief and the fulfilment of practical needs can hardly be better illustrated. It is the same unity which dominated the life of medieval man, the same immediacy, the same intensity, and the same identity of religious and social dynamics. Like medieval man, the Polynesian is convinced that the experience of the transcendental and of the everyday events and phenomena should not be split up, and that causality is but a poor explanation of the interaction between the supernatural powers and the earthly activities of man.

Greek thought is still permeated by an experience of Nature which, as Professor Butterfield has expressed it in The Origin of Modern Science, "has the door half-way open to spirits," although man's interpretation of the universe shifted from unquestioning belief to the search for truth. His relationship to Nature remained tinged with the conviction that it is an eminently personal world in which he has to find his way. The great Thou still lingered on in spite of the brilliant unfolding of thought and reason. The legacy of the past was still too strong for the Greeks. They could not completely shake off the fetters of mythical limitations. Thought was not fully emancipated. And yet the germ of doubt of divine superiority was sown, and even the gods were subjected to Fate that dominated the life of gods and men alike. Macrocosm and microcosm are intimately interwoven, and man symbolized the general in his individual being. Greek symbolism is a very concrete, a very direct symbolism, which comes to life in visible form, not through complicated analogies. Thus the polis is the symbolic expression of the ideal structure of society, and the only correct form of its synthesis with the cosmic order.

However, in other respects Greek symbolism has strong affinities to earlier civilizations. Nature is filled with gods and semi-gods. Not only the cosmic forces of heaven, but every mountain, every stream, is thought of as the emanation of a being similar and related to man. Here lies the

affinity to magic. But the decisive difference is that this galaxy of divine powers never degenerates into a rigid pattern, that it is always open to changes, and that this permanent re-creation endows it with a strong and direct realism which attunes it ever anew to life.

Man is the centre of life on earth, and the earth the centre of the universe. A series of concentric spheres surrounds the earth, and the outermost sphere, as the seat of divine harmony, causes the revolution of the celestial bodies. This is Aristotle's system, which was to dominate the conception of the universe for two thousand years. In this universe "the things that were in motion had to be accompanied by a mover all the time. . . . It was a universe in which unseen hands had to be in constant operation, and a sublime Intelligence had to roll the planetary spheres around. Alternatively, bodies had to be endowed with souls and aspirations, with a 'disposition' to certain kinds of motion, so that matter itself seems to possess mystical qualities." The Aristotelians were convinced that matter is continuous and that a total void was absolutely impossible. Here we have the explanation why Greek architecture does not create space and space-relations.

But there are still other tendencies which contain the rudiments of our own modern cosmology and illustrate the undeviating consistency with which the Greeks adhered to a theory and thought it out to its last consequences, giving free rein to intellectual speculations. Anaxagoras outraged orthodox religious opinion of his time when he suggested that the sun was a mass of incandescent metal, and Aristarchus of Samos, the "Copernicus of Antiquity," maintained that all planets, including the earth, revolve in circles about the sun. Both men were persecuted for their scientific convictions. And yet their ideas are perhaps more symptomatic of the revolution in the ways of Greek thinking than many others. They are the brilliant manisestations of an independent mind in search of an understanding of Nature in her modus operandi, not as a symbolic dreamland. It is characteristic that the naturalistic symbolism of Egypt created the Papyrus and Lotus columns and interiors which are the image of a garden: the ceiling is the sky, and the columns are like gigantic flowers, not even faintly indicating that they bear a heavy load. The ceiling seems to stretch weightlessly over the capitals. A fairy-tale in stone. The functional symbolism of Greece is, as it were, an indirect symbolism which does not repeat natural forms. A Doric column is a translation into abstract form of the tensions which are inherent in every natural phenomenon; it produces sensations of energy and tensions. Speculative thought and 1 Butterfield, op. cit.

intellectual interpretation impart to matter something of the universal order latent in the seemingly insoluble anarchy of the natural environment.

The Greek polis was limited in size and character. Its scale was fixed by man's own standards. Aristotle demanded that the polis should house "the largest number which suffice for the purpose of life and can be taken in at a single view." Thus life did not become abstract, and the relations of men to their town remained concrete. The polis developed in opposition to the countryside as a kind of concentration of the State, but, unlike the medieval towns of continental Europe, this antagonism was not expressed in surrounding walls, which were added only later as protection. This distinguishes the polis from the Roman town. Here the walls were built first, and the towns were conceived from the very beginning as a limited whole. The Greek polis retained its intimate and limited character through the strength of its social life and the community spirit, and above all because the Greeks relied on their unerring sense of imaginative realism and feeling for the beauty of limitations. They did not need the encircling girdle of the walls to achieve their purpose. The Romans, as the great organizers of antiquity, began the building of their towns with a sacred ritual: a bull was sacrificed and a plough traced the course of the walls.

Something similar took place in China. The walls were the most sacred part of the town and were erected first. The town was conceived as a whole from the very beginning, and the space created by the enclosure of the walls was only gradually filled with houses and official buildings. Although quite a number of Chinese towns extend over a large area and their streets and houses seem to form an inextricable mess, they are yet systematic and attuned to the human scale. The main reason for this great achievement is that the houses are the primary element and the streets are subordinated to their arrangement. In general there was a conspicuous tendency to work with individual elements and to encompass one in the other—districts, family compounds, and houses. Thus the human scale was retained, and life not deprived of its immediate and personal character. Magical considerations played an important part: the lay-out of a town was not only based on practical considerations; it was dependent on geomantic rules as part of the magical ideas which have dominated Chinese thinking since early times. An essential point was wu wei, "not doing," the "not changing" of things and Nature.

Like Greek and Roman and also many Mohammedan houses, the Chinese house is "introvert," built around one or several inner courtyards. The house belongs to the "family," not to an individual owner. China,

before the Revolution of 1911, was a land of families, and the State rested upon the millions of the cells of the families in town and country. The people saw in the State nothing else than a concept representing forces which served the welfare of the country. The power and the concept of the State were never considered as ends in themselves. Within even the largest Chinese cities the "introvert" character of the houses as the "cave of the family" maintains the direct appeal of the small and personal world, in spite of the hustle and bustle that went on outside. It is very characteristic that the Chinese knew five points of the compass; in addition to the four which we distinguish they had a fifth, the centre. This concept expresses, perhaps more than anything else, their sense for a restful equilibrium and the layout of their towns and houses which are focused on the centre and developed from the periphery inwards.

Fundamentally it was the same in the towns of the Middle Ages. The burgher was the direct successor of the citizen of the polis: the narrow livingspace of his town was the centre on which his whole life converged. spiritual and practical activities were confined to this limited sphere. For him, too, the earth was the centre of the universe, which he conceived as a gigantic sphere enclosing the earth. Yet there is also a prosound difference: the self-reliance of the Greeks and their positive attitude to life had given way to great diffidence. The perplexities which overwhelmed medieval man threatened to disrupt the unity of his religious faith with his practical life. They drove him into the shelter of fraternal associations with his fellow-citizens in the hope of finding a mental and spiritual balance and lessening the burden of individual responsibility by allegiance to organized groups. Family, guilds, religious orders, confraternities enfolded the individual. The town was a community, a union in the sense of a brotherhood. Christianity tended to break up the magical and taboo links on which blood relationship still largely rests in India and China, in Japan and in Islamic countries. "Elective affinities" assumed equal rights with consanguineous relationship. It is this voluntary association which gave a new security and created the essential pre-conditions from which an urban community could grow. All medieval towns were surrounded by walls, thus impressing in a visible form the limitations of the narrow-wide world in which the burghers had to live. The houses were the primary and formative elements in the plan of the town; the streets were the secondary result. The windows were small, and place of work and living-rooms were under the same roof. The whole was a perfect "machine to live in," functional, spacious, and intimate.

The dualism of the actual experience of life in this world and of the expectation of a life in the hereafter is paralleled by the duality of reason and emotions, by scholastic reasoning and mystic religiosity. The religiosity of a scholastic amounts to a logical disintegration of the religious faith, although its aim is to deepen it and, through the excitement of reasoning, to create a spiritual ecstasy which would carry him into a communion with God. Mysticism is the other great driving force of medieval transcendence, and has an emotional basis. It appeals to the senses, though its essence is to overcome them and to turn sensual experience into super-sensual—that is, metaphysical insight. The paroxysm of the soul had a double effect: it left its mark on everything that was created by medieval man, and it exerted the same influence on everybody who came in contact with it. Behind the material form loomed a second transcendental significance freed of all earthly burdens. Medieval man could not solve the mystery with which the dualism of worldly and heavenly aspirations and promises confronted him, but he did make himself believe that he could rise beyond it by absorption into the divine essence. Religion was the great "uniter" of medieval life; it guided men into association with other men; and it created a spirit of community without which the erection of the Gothic cathedrals would have been impossible.

Especially in the early part of the Renaissance the individual being was still "bounded in a nutshell," still embedded in the community of small citystates. It is wrong to picture the Renaissance, as Jacob Burckhardt has done, as the period when "man became a spiritual individual, and recognized himself as such." In reality the people were guided by the same herdinstinct which is the curse of all ages, including our own. It is a fallacy to speak of Renaissance individuality in generalizing terms. This distorted idea arose because the life and deeds of a few men were over-valued as representative examples of this period. Socially the individual citizen was a member of a guild, a fraternity, and the community. On all sides he was hedged in by social taboos. Politically he was unfree and at the mercy of the ruling cliques. Morally he was a conformist for whom moral and social pressure was more weighty than his own conscience. The small city-states were the ideal units in which a community spirit could develop. They were small enough to make communal life immediate and personal. The State had not yet been born.

The Renaissance unified the layout of a town by focusing the main streets on a central square. Limitation remains the characteristic feature. But this limitation is now more complicated; it loses the spontaneous irregularity

of the medieval towns and is systematized. The simple walls gave way to an elaborate system of defence which could withstand more efficiently the new technique of long-range firearms. The streets began to assume primary importance. In spite of the focusing of the main streets on a centre, the periphery became more significant.

However, the first tremors of the impending Scientific Revolution could be felt towards the end of the sixteenth century. Religious man began to fade into the shadows of the past, and economic man appeared on the horizon. Life became gradually more abstract, and the relationship between men lost its personal directness. The men who were to stir spiritual, intellectual, and artistic life to its very depth were born only towards the end of the fifteenth and during the sixteenth centuries, but their work did not exert its influence before the seventeenth century was well advanced. Copernicus's treatise De Revolutionibus appeared in 1543. Giordano Bruno was burnt at the stake in 1600. Galileo is said to have conducted his experiment on falling bodies in 1591, and it was not before 1638 that his Discourses Concerning Two New Sciences was made public. Kepler issued his New Astronomy in 1609, and Descartes published his Discourse on Method in 1637. The work of the revolutionaries had no influence on the Renaissance. And yet, as so often happens, the latent forces of transformation, the unreasoning awareness of the emergence of a new relationship between man and Nature, were sensed by a small number of inspired artists. They are the harbingers of the great men of science and philosophy. Their works were admired, but whether they were understood is another question. However, all this has nothing to do with "Individuality." It is rather a breaking away from old formulas only to succumb to new "old" formulas.

The Copernican world-system assumed the sun to be the centre of a finite universe. Giordano Bruno went further; his universe is infinite. It is a universe without a creator, for an infinite universe cannot be created from outside. In Cena de le Ceneri he says: "Bodies can only be said to have certain relations to other bodies or frontiers that are chosen arbitrarily." And in his other treatise On the Infinite Universe he states: "The essence of the universe is one in the infinite and in whatsoever thing you take as a member thereof." These words became the creed of the leading spirits of the Baroque period, though they were hardly aware of their revolutionary implications. But they were moved by the same spirit and strove to give it form.

Towards the end of the Middle Ages group-consciousness was fading. The interaction of the general will and the individual will grew weaker and

weaker during the Renaissance till it led in the Baroque to the supremacy of a small minority and to the levelling down of the majority to an inarticulate mass of obedient subjects of the rising State. The strong social, economic, and religious bonds which had enveloped and held together the small communities, and which had created a unison of individual spontaneity and communal spirit—these bonds were broken, and in their place the abstract notion of the State and the *l'état-c'est-moi*-arrogance threw their impersonal net over a confused population.

Aristotle's assumption of a universe limited in space and time remained unquestioned till Giordano Bruno revolutionized this concept by maintaining that "the world is infinite," and till Aristotle's notion of a universe in which moving bodies were accompanied by a mover the unseen hands of whom were in constant operation was challenged by Galileo's theory of uniform motion. Both these conceptions mark the actual beginning of the Scientific Revolution and the watershed between medieval and modern thought. The concept of the infinite and centreless universe is expressed in the perspective view, and the concept of uniform motion in the coalescing and fleeting forms of the Baroque which replace the distinct and static aggregation of the forms of the Renaissance. This mechanic-causal explanation of the nature of the universe led logically to its splitting up into an infinite number of constituent parts which, through their mutual reaction, produced the working of the cosmic whole. These ideas struck at the heart of medieval theology and disintegrated the social structure. In the human sphere this revaluation of man's relationship to God and to his fellow men had far-reaching repercussions. The small and integrated group is superseded by the rationally conceived State, a transformation made possible only because the individual beings hitherto embedded in the all-pervading groupconsciousness became aware that they were alone in this world and that the former intimate relations with other members of their group were disintegrating. To these isolated individuals the world appeared as a limitless expanse, as something that was "moving away" instead of enfolding them. These feelings were of course diffuse, and hardly entered the consciousness of the men of the Baroque, but they were nevertheless a very real and potent force.

The cosmology of Descartes is also a typical product of the Baroque. He regards the infinite universe as devoid of empty space, and matter as uniform "though divided and figured in endless variety. Matter is closely packed, without vacuum. Therefore, the movement of any part of matter produces the movement of all matter." 1 This description of the Cartesian

¹ C. Singer, A Short History of Science to the Nineteenth Century.

universe fits without any alteration the nature of Baroque architecture—infinity through the continuous movement of uniform matter, or in other words, infinity through matter in motion.

Newton put the seal on this long line of development by his conception of a "working universe wholly independent of the spiritual order." God was the prime mover of a wonderfully and smoothly working universe. He was "pensioned off," and watched the harmonious working of His creation as an onlooker. Could this dynamic equilibrium not be extended to the earthly sphere, to the structure of society? Is the Absolute State not the ultimate solution, and is it not better to trust to a free economy working for the common weal of free citizens? The Age of Enlightenment is approaching, and with it another of the eternal illusions befogging the mind of man.

This insurgent era, which was the cradle of the revolutionary changes of the eighteenth and nineteenth centuries, was in all social matters retrospective. The ideal of the medieval knight was to be re-discovered in the newly forming aristocracy, but this new aristocracy was less rebellious towards the autocratic kings than the knights of the Middle Ages towards the Emperor. It was above all an aristocracy of courtiers, and their ways of life and interests soon became identical with the Absolute State. The vitality of the towns withered away and the countryside sunk into poverty and degradation the more the Age of Enlightenment approached. Jealously guarded privileges, rigid codes of customs and habits, and a wide gulf of morals and education separated the classes of society. Montesquieu compares the republican and monarchical attitudes: "In a monarchy actions are not determined by morals, but by beauty; not by justice but by pomp; not by reason but by the extraordinary." This attitude was the driving power behind the fondness of the Baroque for expressing its aspirations through the erection of buildings, for the competitive spirit with which popes and kings, clergy and wealthy persons, demonstrated their social standing and qualifications. Every building was a cheque on the future and a handsome gift to the present. Not to be forgotten by generations to come, and not to remain unnoticed by the contemporaries, was the desire of those great and little potentates.

The essence of the towns of that time can be fully understood, however, only by taking into account the tensions which arose out of the new attitude to life during the Baroque period. Those tensions resulted from a changed conception of space—that is to say, from thinking and planning on a larger scale. They resulted from the growing knowledge that the world is so complex that its innumerable potentialities can be mastered and usefully

employed only by combining on the same level the sense of reality and the sense of possibility, theory and practice, planning and execution, imagination and sobriety. Men responded to the new spaciousness without desiring to be lost in it. Baroque works have something hollow and exaggerated about them. They are full of ambitions and emotions which no one could endure in reality.

The new social and economic order had a far-reaching effect on the relationship between the places in which men lived, worked, and sold. The market-place lost its importance; it was used principally for buying and selling food. Shops made their appearance. Now sale and production, home and workshop, were separated. Family life and business life fell apart. The need for communications grew. Personal and working life lost their mutual balance; work became the centre round which everything else rotated, till it swallowed up the whole of man's thinking and feeling, his loyalty and interests, and dictated the cycle of his daily life; till fragmentary man, the finished product of our own time, was the result and functional life had gained an absolute ascendancy.

This rapid review is necessarily incomplete, and the examples which have been adduced in this brief historical sketch have been selected more or less at random. But they may be sufficient to show the continuity of the intimate and personal interdependence of man and environment, of the I-Thou relationship, and also the unity of thought linking the everyday events and the immediate environment to the order of the universe, a unity which is inherent in the I-Thou relationship. Only about ten generations separate us from the beginning of the Scientific Revolution, and from the time when the continuity and unity which had shaped the life of generation after generation for many centuries began to break up under the impact of impersonal and disintegrating forces. This short period, short in comparison with all that has gone before, has created conditions of life which seem to challenge the very essence of our existence. It has bestowed on mankind the doubtful product of fractional and economic man and the even more disruptive gift of an I-It relationship that does not extend only to the relations to things, but also to those of persons. Our life is growing abstract at an unprecedented pace and intensity, and we seem to be helpless victims of this development. We cannot rid ourselves of our longing for the past, and we dare not yet trust the promises which the future holds in store. This anguish will last as long as our personal and functional life remain antagonistic forces and as long as the world of the Thou and the It are not related in a dynamic equilibrium.

And yet, in spite of the breaking apart of these two worlds, and in spite of the tremendous changes which have caused this disruption, can we seriously maintain that the fundamentals of existence have changed absolutely? In what way is our life different from that of the first city-builders or the life of a farmer today from that of the early peasants? The material conditions have changed relatively. But I have grave doubts whether Harappa or Mohenjo Daru, Babylon or Rome, meant to their inhabitants something fundamentally different from what our cities mean to us, or whether the ways of thinking of the peasants have changed essentially since the time when men projected their ideas and anxieties on to concrete symbols, then on to gods made in the human image, and finally on to one God. Are we really different from earlier generations? I suppose we are not. Our problem is merely to attune ourselves to new environmental conditions in such a way that we can restore a creative balance between them and ourselves and between groups and individual beings.

We should apply our ideas of the universal order to the everyday problems by repeating what our predecessors have done but what we have failed, so far, to recognize as necessary because we are overwhelmed by the awareness of the gap between our ideas and the reality of life. The link between the infinitely great and the infinitely small has been severed, not because we know too little, but because we cannot reconcile the dawning insight into the oneness of the small and the large world with our fractional ways of thinking and acting. This dawn of a revolution in our ways of thinking and acting seals the fate of economic man, the symbol of our time, and the enemy of social awareness and social reformation. Economic man could grow into his present stature only during a period which had excelled in analytical achievements and reached its high point in the creation of the Expert, the final perfection of fractional man.

Generalities always lay themselves open to the justified criticism that they are not free from sweeping assumptions, and therefore are, at least partly, inconclusive and incomplete. And yet they contain a considerable measure of useful observations, if these reservations are borne in mind and the relevant conclusions are applied with considered qualifications. In this sense the following remarks may be useful as an indication of the changing interaction of man and environment throughout the ages.

In broad outline four stages in man's changing attitude towards his environment can be distinguished. All these stage exist today and overlap in large areas of the world.

The first stage is one of fear and the longing for security, of fear of the

unpredictable and unknown forces of Nature and of a longing for protection against these forces and against the hostility of men. Particularly in primitive circumstances careless displacement of the natural features of the environment is the result. These activities are not lacking in rationality and lead often to collective work. They are accompanied by the gradual formation of closely knit groups. The objectives are restricted to a limited and definite purpose, and the obviously and directly necessary is done in a simple manner. Man is deeply embedded in Nature, and cosmic and earthly events are for him inextricably interwoven. His reactions to this mutual dependence of the macrocosm and the microcosm are based on concrete orientations in space and time, not on abstract concepts. He solves his practical problems in an empirical manner, and his attitude to the external world of men and things is permeated by an I-Thou relationship full of symbolic and personal meaning. All this is evident in the works of early and primitive man and can be observed today in the windscreen settlements of the Bushmen, the igloos of the Eskimoes, the pile-dwellings of the South Seas; in the careless displacement of the natural conditions for shifting agriculture; in the kraals of the Bantu negroes, the tribal coherence of African, South-East Asian, and other peoples; the integrated structure of the clans of old China, and the zadrugas of old Bulgaria, and in many other activities and social institutions.

The second stage is one of growing self-confidence and increasing observation, leading to a more rational adaptation of the environment to differentiated needs. Elementary protection develops into purposeful reshaping of the environment, and displacement of Nature is followed by replacement. The objectives are complex and interrelated, and widen in scope and character. During this phase the conception of the universe is geocentric, and man's attitude to Nature remains personal and direct. He classifies his observations, but without a methodical and objective research. His activities correspond to his conception of the universe as a limited and stable entity. He accepts the challenge of Nature as a disciple and reformer, and the I-Thou relationship persists, though fashioning in a different way the interdependence of individual and group and his appreciation of the cosmic and earthly phenomena. Man sets out to widen his knowledge of the earth by the discovery of regions which were formerly unknown to him. But these early discoverers pushed their way forward only gradually and empirically over a continuous space which they occupied in only a few places through which they merely moved on. The voyages of the Phœnicians in the Mediterranean, or the travels of Marco Polo, are representative

examples. Limitation and stability are characteristic of this phase. Even the great Empires of the Incas, the Romans, and the Chinese are enclosed by the erection of continuous walls. They are compact units expanding step by step within limits which are reached by the actual conquest. Similar is the structural conception of the towns. In China and the Roman Empire the towns are conceived as limited units for stable conditions, an idea that is visibly and symbolically expressed by the fact that the building of a town begins with the tracing and erection of the walls. The same holds good for the European towns of the Middle Ages, and even for the cities of Greece, which are limited in size and social structure, although in this latter case the visible limitation by a wall does not play the same initial rôle. Chinese, Greek, Roman, and Arab houses are built around an inner courtyard as introvert units of living. Just as the towns, the houses are conceived and executed from outside inwards, and both are symbolic and realistic "vessels of wholeness" which are essential for the integration of the groups living within the shelter of their protection. They are concrete means of orientation in space and time, and their limitations are an ever-present promise of the unity of the group and individual intimately related through the personal and direct character of life. During this stage all activities bear the same mark of immediacy and reciprocal adjustment. This is manifest in such works as the rice terraces of China, the plant-like bamboo bridges of East Asia and the liana bridges of the South American forests; in the geomantic adaptation of Chinese towns to environmental conditions; in the regulation of the rivers and the irrigation of fields; in the social and religious significance of the layout of Indian, African, and other towns, to mention only a few of the innumerable examples.

This intricate texture is slowly but irrevocably loosened up by the influence which the heliocentric conception of the universe exerts upon the mind of man and by the irresistible urge to expand the living-space in accordance with new ideas. European man, the agent of this transformation, remains still entangled in the old spiritual and social complexities, in spite of their diminishing power of attraction and integration, till the full force of the Scientific Revolution makes itself felt. The range of discoveries widens, and their success is the result of more precise calculations. Columbus and Vasco da Gama can rely on the compass; Kepler and Galileo base the discovery of the laws of Nature on the principle of measurement. Empires are scattered over large parts of the world. Walls lose their importance and turn into complicated defence systems. The external appearance of houses gains in importance. The coherence of the traditional groups, of

the guilds and fraternities, is disintegrating and the all-pervading power of the I-Thou relationship is gradually declining till the loneliness of the individual makes him an easy prey of the ascending State into the organization of which he is recklessly absorbed as an obedient subject.

The third stage which has led to our present situation is one of aggressiveness and conquest as the consequence of a loss of self-confidence. Adjustment to the environment develops into exploitation. The objectives are unlimited and grow in diversity, but also in disunity. With the ruthlessness of a pioneer man expands his living space, and with a complete disregard of the danger of a primarily quantitative expansion, he deludes himself into the rôle of an omnipotent re-maker of his environment. He believes that the natural resources are inexhaustible and that there is still an almost unlimited and undisposed space available. Enough has been said in the foregoing pages about the relationship of group and individual and the growing indirectness of life during this period. There is no need to repeat a discussion of these problems. Neglect and exploitation of the natural resources, rural isolation and urban expansion, have produced an unexampled disunity of the social and economic structure. The limits of expansion have been reached. The preponderance of Europe as the seemingly eternal centre of the world is disappearing. What we believe today to be a break with the past, especially in the social sphere, where the disturbing elements are indeed very obvious, is rather a break-through of something that has always existed, but has laid buried under the debris thrown about since the inception of the Scientific Revolution. It is the slow emergence of a community spirit—in spite of all contradictory events and a widening rift between shallow traditions slothfully accepted and handed on from generation to generation and the rebellious instinct of man struggling to free itself from the fetters of a suppressive State and a dying society. It is a rebellion against the sinister allurement of the death instinct -not only operative in war, but also through the suppression of selfexpression and widening opportunities for all strata of society—and a revolt in favour of the life instinct and non-material values as guides to a future when human values will be paramount.

However, all this does not amount to a break with the past. Rather it is a change of direction. The vital problem which our age has to face is: How can fractional man grow into full man, and how can a new approach towards the variety of life develop which is commensurate with the transformation of man's personality and leads away from the over-estimation of analysis and the neglect of synthesis.

This phase is drawing to a close. The fourth stage of the interaction of man and environment is slowly taking shape. Faintly the outlines of the new epoch are discernible. It will be an age of responsibility and unification. Expansive ruthlessness is gradually merging into a careful adjustment to environmental conditions and new possibilities. Man begins to be aware of his real responsibility and of the limitations which the closing frontiers of the world impose upon him. The illusion of infinite spread and the conviction that individual and unrelated actions will produce a coherent whole are fading away. The objectives are gaining in precision, foresight, and co-ordination. Unity in diversity and unification are emerging as the main tasks in the next stage of development in which man must act as a co-ordinator guided by social awareness and insight into the workings of Nature.

Copernicus, Galileo, and Newton gave in the language of their time the answer to the speculations about a new cosmology. Their world is today a microcosm, a thousandth part of a light-year in comparison with a thousand million light-years of the universe as contemporary astronomers and physicists conceive it. While before the introduction of a new definition time was measured by the revolution of the earth—the hands of the clock simply imitate this movement—it is now measured by the velocity of light. This "new" time forms together with space a new "space," the fourth dimension. This space is unbounded and yet it is not infinite, as the extension of a sphere is without a boundary and is yet not infinite, for it has a definite size conditioned by its radius. In the same way the size of the universe depends on its average curvature, and this in its turn is determined by the amount of matter existing in the universe. According to the theory propounded by Hoyle and others, and based on Eddington's conception of the expanding universe, matter is continuously and spontaneously appearing throughout the universe. The average density of matter remains constant, while the universe expands, implying the creation of matter in accordance with the expansion of the universe.

Just as the concept of space has changed, our ideas about matter are undergoing a far-reaching revision. The demarcation line between matter and form is disappearing. Change of matter was thought of as imposing on matter another form different from the original one, but modern science is gradually coming to the conclusion that matter and form cannot be separated and that it is impossible to say where matter ends and form begins. Thus matter assumes the quality of a changeable membrane, of a thin background somewhat of the nature of the raw material of the universe,

hydrogen, which is very likely the cloudy film blurring our view into our galaxy and the primeval material of the stars growing by attracting hydrogen on their path.

To these revolutionary changes must be added the seemingly irreconcilable antagonism between the infinitely small and the infinitely large, or, in other words, the emergence into the full light of consciousness of the concept of wholeness. To see the whole, even in the minutest detail, and in the whole the interaction of innumerable details, is a disturbing demand to make upon us. It is not merely the fact that we know that there is something like a unitary working of all natural phenomena, but that we have to adapt our ways of thinking and doing things to this new and yet very old concept which has thrown us off our balance. If we may speak at all of a break with the past, it is in the concept of space and matter and in the conception of wholeness that this break has occurred.

When I had finished writing this discourse on Social Ecology I read once more Dr. Bronowski's excellent book The Common Sense of Science, and found a passage which I had overlooked, though it refers to one of the most momentous changes in scientific thought. Moreover, it expresses, in my opinion, in exact terms just that principle which should be made the guiding approach to Social Ecology, but which I, as a non-scientist, could not see and formulate clearly. It coincides with my own ideas which induced me to write this book. Although I was convinced that scientific thought and sociological thought are moving in the same direction, I did not expect that this proof would be so complete. Dr. Bronowski writes:

"The analytical and impersonal view of the world is failing. Once it was enough to think that the world keeps still and distant while we painstakingly carve it into sections for microscopic examination. But this is a simplification which has now served its turn. We have reached the stage where the world is integrated within itself, and the gap between the observer and the fact cannot be kept open."

And—

"In the physical and in the logical worlds, what we have seen happen is the breakdown of the plain model of a world outside ourselves where we simply look on and observe. It has turned out that you can approximate to physics when you make this separation, but there comes a point when the approximation breaks down. When this point was reached in astronomy, Einstein's laws took the place of

Newton's. For Relativity derives essentially from the philosophic analysis which insists that there is not a fact and an observer, but a joining of the two in an observation. This is the fundamental unit of physics: the actual observation."

Here we have in a scientific language the same idea which we have expressed in the conception of the I-Thou relationship, the "fundamental unit" of observation, and the essence of a personal and direct relation between ourselves and the external world as the basis of Social Ecology.

The fact that in the past small communities formed the most favourable environment for a life that was direct, intimate, and personal is no proof that this must be the same in the future. New forms of social integration may develop, but if this is so, these forms are not yet visible, and far less have they taken shape. My personal conviction is, however, that the present structure of settlement will wither away and that the senseless conglomerations of our cities and the retarding isolation of the countryside will give way to a more even distribution of population. The end of cities means the rise of communities. And it means also an expanding environment, which will be more consonant with a new social pattern. The tendency towards decentralization in all spheres of life, not least in the field of physical planning, is a healthy sign. The whole country is our unit of planning, and on this scale a dissolution of the cities and the establishment of numerous small communities abolishing the social disparity between rural and urban status can be the only aim of a genuine effort to end the present chaos. The task before us is to translate the fourth dimension, space-time, into reality, into a new pattern of living, representative of full man. So far we are still treating space and time as separate entities, whereas they should be a union, even in the harsh reality of everyday life.

I believe that whatever we try we are bound, in the end, to replace the atomized society by integrated communities and to build up the new structure from the bottom within the general framework. We must develop a new social structure, and above all a new spiritual, emotional, and intellectual attitude towards our environment and towards the group to which we belong by social affinity.

The thesis, unfortunately only too commonly and readily accepted, that the masses are the decisive factor and that only that will last which has been "absorbed" by the masses, is dangerous nonsense. The masses, the atomized and interchangeable multitudes, are "decisive" only in a very superficial sense. The dominant minorities are the really decisive factor. The

paramount problem is how to transform the dominant into creative minorities—and the masses will follow. It is a conquest by infiltration from above and by persuasion through factual achievements from the bottom. The dominant—that is to say, the political—minorities represent the State, this anachronistic relic of the last centuries, and the worst enemy of a creative vision of life and of a life-centred, not technique-centred, enthusiasm. However, let there be no mistake: the condemnation of the State does not mean the glorification of laisser-faire, of a misunderstood individualism running amok. It means the replacement of the State by communities and of "individual initiative" by mutual aid and co-operation.

The technical period through which we are passing, the discovery of the smashing of atoms, might be compared to the invention of elementary tools and the domestication of animals, to the theft of the fire by Prometheus drawing the wrath of the gods upon mankind, and perhaps to the Urban Revolution, when man was cut loose from the natural environment and set out on his adventurous path of the conquest of Nature. But beneath the thin veneer of technical success there is stirring the yearning of humanity to find a way out of the desert of personal isolation and to pierce through to the fundamentals of human existence.

We are in the fortunate position that all the four stages which we have tried to sketch can be observed today, and that we have therefore a measure of comparison from which we should draw the relevant conclusions. But these conclusions must be related to the future, not to the past. Our longing for the past rests on faulty ideas. The world is never the same for me and for you; it is always different, in every period and for every generation. And yet we want to preserve the old values and the old relationship to our environment. What we want to preserve are in reality merely the hollow forms of dying institutions, not the deeper forces of creative self-expression.

We can overcome these difficulties only by the growing insight that we—we meaning the whole of mankind—are the makers of innumerable individual worlds and that all external phenomena are mere vehicles of our creative imagination, and that we must concentrate on integrating these innumerable worlds on a human level by becoming full men shedding our fractional approach to things and other men without impeding our faculty of objective observation and speculative thinking and without retarding the synthesis of our personal and functional life. The present disintegration of our personalities may be the preparatory stage before full man is borne and before the unfathomable variety of potentialities can be absorbed into the wholeness of existence. But it may also be the beginning of the end. This

is our problem, and this problem has acquired its frightening magnitude because we have forgotten the ends for the means. What remains, if this development continues and economic man continues with it? The result will be a total disintegration of our personalities, and the rest—the rest is bunkum. The State will be the only winner. It will extend its power over the human atoms till they are irrevocably absorbed into its life-destroying machinery. Men will be cowed into an ever-increasing submission to the power of the State, for in the last resort there looms behind the State and his representatives the threat of the prison and the executioner.

We cannot reconcile irreconcilables. In a shrinking world we cannot persist in the preservation of sovereign States and at the same time hope that life-centred communities will come into being and flourish by the grace of the State. Even the most far-reaching control of the executive powers by parliamentary methods cannot perform this miracle. The State is a law unto itself. It is a self-propelling machine which will run its course as long as its raison d'être is preserved. Its raison d'être was the organization of the people into large national entities after the disappearance of the numerous local units and their organic unity. This object has been achieved at the cost of human freedom and human dignity. It could be achieved because those who were most directly concerned were not aware of the disintegration of their personalities and remained ignorant of other possibilities. A State is by its very nature impersonal. A community by its very nature personal. The one is an abstract notion, the other a concrete experience. These fundamentally antagonistic tendencies cannot be reconciled. One or the other must give way. The choice is clear, and it seems that we have passed the turning point in spite of the still-increasing power of the State. The open conspiracy of those who revolt against the supremacy of the State is spreading all over the world. But let there be no mistake: this revolt will not be carried forward by the eternal men of yesterday, by the adherents of a misunderstood individualism. These "last-ditchers" will be the first to be left behind. They would misuse fertile ideas and try to impose their own pattern of thinking—or rather of not-thinking. It is, for instance, highly characteristic that the idea of neighbourhood units, sound and human in itself, is now being used for racial discrimination: for every race a separate neighbourhood unit. The State is undermined by its inherent lust for power and by its consequent and unavoidable disrespect for human values. It is up to us to put something else in its place before it is too late, before the immoral and senseless aspirations of the National States have led mankind to its final ruin.

In whatever form the State exists today, its basic qualities are the same. It is therefore futile, to say the least, to hurl accusations across the national frontiers and to try to impose one particular "Way of Life" on other nations. Rather is it essential to understand why the relationship of group and individual has developed differently in different countries and to realize that ONLY DIFFERENCES OF DEGREE, NOT OF PRINCIPLE, DIVIDE MANKIND.

This obvious fact has been obscured by the hysterical outbursts of mutual defamation and distrust. In this turmoil of violent passion turning fear into aggressiveness and reason into madness the voice of humanity is drowned by the chorus of political charlatans, whose slogans and platitudes befog the mind of the masses. If we tried to pierce through the clouds of misunderstanding, we would see that in the East the relationship of group and individual has always been weighed much more strongly in favour of the group. In China and other Far Eastern countries it was the clan, in India the caste, in Russia the mir, the old village community, and in Bulgaria the zadruga—the joint family—who were the predominant social entities. The individual was first a member of his group, and only within his group could he arrange his life and work. This social structure is now confronted without a longer period of transition and without almost any preparation with the impact of industrialization and nationalism, in addition to a social revolution. It is thrown into the whirlpool of a large-scale transformation which has its centre of radiation in the West, being itself in a state of disintegration. This confusing coincidence has telescoped in the East the social and economic, the political and intellectual changes into one almost apocalyptic eruption. Under the tremendous pressure of these forces the East has turned to a forcible combination of the old and the new. The old is still alive, and the new not yet sufficiently understood. Group consciousness is the leitmotif that runs through this development linking the past with the present. It should be obvious to any independent observer that the intention of the West to impose its own pattern of parliamentary democracy upon the East is bound to fail, the more so as we are ourselves in a state of a violent transformation of our social and economic life. Massification is universal. It varies only in its form and origin. In the East the State draws its strength from the original biological and social groups who are gradually merged into its machinery. In the West it rests on the professional organizations of capital and labour and on the deceptive security of conformity. In the East the Church is being assimilated to the State and religious doctrine identified with the new social pattern and the political ideology. In the West the Church is one of the important buttresses of the

State, although even the Church authorities admit that its influence is on the decline because it stands for the maintenance of the old and conservative ways of life. Small wonder that in this internal and external tug-of-war between antagonistic doctrines and interests the dignity and uniqueness of man are forgotten or misused for unholy ends, and that on both sides only what is most easily comprehensible and can be turned to a practical and quick advantage is more readily accepted as a "solution" than long-term possibilities touching at the roots of human existence. The fulfilment of economic needs is such a "solution." "Make us your slaves, but feed us"; these words of the Grand Inquisitor are all too true. They have been the battle-cry of Economic Man which drove him on in his ruthless suppression of human aspirations but they also knell the downfall of his empire. The slaves begin to revolt everywhere.

"It is the height of folly to wear out one's intellect in an obstinate adherence to the individuality of things, not recognizing the fact that all things are one."

(Tze Chi.)

Man and environment are one, and the understanding of this oneness cannot be gained by unrelated studies of individual problems. One shudders to think that our mechanistic outlook, with its analytical tendencies, could continue to divert our attention from the imperative need for integration. This fear is not unjustified by the general trend of sociology and a psychology which is still in an "alchemistic" stage. Those who hold this heretical view must be prepared to be accused of an "unscientific attitude." This may be so, but then we are entitled to demand a clear definition of what a "scientific attitude" is. It is definitely not "scientific" to work out imposing theories on the basis of interviews and questionnaires. Nor is it a sign of scholarship to fill papers with who has said what and who contradicts whom, or to evolve a terminology which no sane person can understand and to make it look "objective" by adorning it with a few mathematical formulas, graphs, and diagrams, with a lot of statistical tables thrown into the bargain. All this may satisfy the authors of these pseudoscientific studies and impress the credulous layman, but it will not make a real contribution towards the basic problem of an integration of the social sciences.

If there is anything valuable in this sort of sociological research, it can bear fruit only by relating it to a general framework of reference. This framework is missing. It will be the most urgent task of Social Ecology to

work out this framework and to indicate the main lines of research on a truly scientific basis. The problems which have been sketched in the broadest outlines on the foregoing pages may indicate the nature and scope of this framework. Others may have to be added, and some of the suggestions modified. But in general I believe that the field of sociological studies should not only be greatly extended but above all merged into the larger context of ecological relations. On the other hand, it should be concentrated on the investigation of the points of convergence where man and environment, man and group, and man and man can co-operate. In other words, the studies should concern themselves more with what people have in common than with what separates them, and more with the mutual response between man and environment than with their conflicting challenges. For this task knowledge is not enough. Knowledge must be guided and deepened by insight, just as science without faith—not to be understood in the narrow religious sense—is insufficient. These demands will arouse the wrath of hosts of scientific pigmies who will exclaim in despair that this means a philosophical ambiguity. Well—it would certainly introduce philosophical considerations, but it would also give a guarantee that the genuine human problems will not be forgotten and remain buried under the cold and lifeless crust of a misunderstood scientific objectivity which treats human beings as test-cases of a card-index civilization. For the great scientists a philosophical attitude to their problems was never anathema. Their greatness was the more significant the more they succeeded in uniting science and philosophy in one grand scheme. It is a promising sign that in our own time philosophical considerations play an increasing rôle in the formulation of scientific theories, and that knowledge and faith have come to be regarded as complementary forces. Let us not forget that it is not knowledge, but faith and insight, which create beauty, fellowship, and happiness. Faith and knowledge have always been bound together in an insoluble unity, and because they were so intimately dependent on each other the growing fragmentation of our knowledge spread to faith and contributed to its decline. We must re-discover this unity and discard the illusion that knowledge and faith are mutually exclusive. Faith is not the equivalent of a stunted urge for knowledge, it is not a state of blessed ignorance which is only too often praised as the desirable property of the truly faithful. Faith is creative imagination, and knowledge is not merely knowledge of facts but insight into the processes which bring them about.

If we succeed in integrating faith and knowledge on a higher plane and

to free them of their blind and fractional qualities, the synthesis of the worlds of the I-Thou and the I-It will become a living reality. Then the impact of the overwhelming variety of new ideas and possibilities, of new discoveries and inventions, will lose the frightening aspect which has prevented us from seeing men and things in relation to the whole of our social and physical environment. Then we shall shed the last vestiges of superstition and attune ourselves consciously and audaciously to new conditions of life and new ideals.

The emergence of communities in a stateless world is the highest ideal which we can discern at the present. In contrast to the large organization of the State which enforces a sterile specialization and conformity on its citizens, these small communities will give rise to an inspiring diversity and a new élan vital. Their members will be united by mutual aid and by a common purpose, and their human and social aspirations will shape their environment as the creative expression of their political and intellectual independence.



